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ABSTRACT

This publication consists of papers presented at the World Conference on Education held March 5-14, 1970, at Asilomar, California. It is divided into two sections: 1) Plenary Session Addresses and 2) Working Party Reports. The nine plenary session addresses concern man's physical and social environment and its effect on education, the function of the schools, and the role of education in the future. The titles of the ten working party reports are: 1) Designing Curriculum and Instruction for the Schools of the Future, 2) Preparation of Teachers for Primary Education, 3) Preparation of Teachers for Secondary Education, 4) Improving Curriculum and Instruction--Social Studies, 5) In-Service Education, 6) Cross-national Research in Teacher Training and Teaching, 7) Designing New Programs for Early Education, 8) Instructional Technology in Education, 9) Education's Role in Eliminating Barriers Among People 10) Helping Youth Develop Constructive Commitments and Cross-National Research on Moral Education. An appendix contains a list of titles of papers presented at the conference which were not included in the report. (RT)

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In the minds of men:

EDUCATING THE YOUNG PEOPLE OF THE WORLD

Report of the World Conference on Education
sponsored by the ASCD Commission on
International Cooperation in Education
at Asilomar, California, March 5-14, 1970

Edited by ALICE MIEL
and LOUISE BERMAN

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Foreword

The Association for Supervision and Curriculum Development has had a long involvement in support of international cooperation in education. However, until the two background papers for the 1970 World Conference on Education, Cooperative International Education and The International Dimension of Education, were published early in 1970 our output in this area had been limited to special feature articles in Educational Leadership. Therefore, it is a pleasure to cap the Association's participation in the United Nations International Education Year with the publication of this report of the conference.

As the Conference Director, I am tempted to review the "making of the conference" and its potential for future cooperation. However, this is done most ably by Louise Berman in the "Introduction." Instead, let me speak of the feelings and hopes generated at the conference by adding specific testimony to that hinted at throughout the reports of the working parties which form the second part of this book. From both formal and informal evaluations, the greatest common value of the conference was reported to be an indefinable something variously described as a "warm feeling," "human understanding," or "moodful experience."

Such special, personal insights into people and their relationships are difficult to communicate succinctly in print, even though the discerning reader will catch glimpses of them in the working party reports. As "father surrogate" for over 300 independently minded individuals representing over 50 cultures, I found it a challenging and rewarding experience to work with the participants. They were truly representative of the family of man in microcosm. It was a family of which one could justifiably be proud.

Undoubtedly the ability of the participants to work together was greatly aided by their desire to work together. Some questioned the value of bringing together physical scientists, social scientists, humanists, linguists, artists, and pedagogues whose only common concern was the fostering of better education for the children of the world through improved curriculum and instruction. This report can stand only as a partial testimony. The fullest proof was in the experience, as is true of the most valuable education.

Diversity of viewpoint was sought through the commissioned papers by scholars from various nations. These papers, which form Part One of this publication, will prove of interest to all who are looking for informed statements on issues of central concern to world educators today. Space limitations do not permit the inclusion of the many additional viewpoints expressed as reactions to them. Nevertheless the reports of the working parties provide a valuable indication of the diversity of opinion, working style, concerns, and drives which mobilized the participants. However, more important than the diversity is the ample evidence of the commonalities which enhanced communication and provided a basis for positive cooperative action.

Some fertile ideas were conceived and nourished during the meetings. Still others are now in the germinating or cultivating stages. It is a critical period in which individuals currently spread over the face of the globe and involved in immediate parochial concerns must struggle to maintain the momentum established several months ago. Let me encourage readers of this report to add their names to the list of Asilomar participants who have concern for continuing and greater cooperation in international education. Let me also encourage readers to take the initiative and contact persons in their locality who experienced Asilomar.

It is our hope that this report will not stand as a cocoon to wrap one in the "I'm-glad-that's-over" feeling. There are already too many moldering documents bearing silent witness to a few mountain peak experiences at successful meetings. Rather we hope this report will serve as a foundation from which to launch increased cooperation across cultural and national boundaries aimed at improving the education of the young people of the world. To this end I can attest that the reader will benefit by initiating or maintaining contacts with any and all of the Asilomar participants. From a reading of this report you will be initiated into some of the experiences which in 10 days led many of the participants to express surprise that a world conference could be such a basic educational experience.

Norman V. Overly
Associate Secretary, ASCD;
Conference Director, World Conference on Education

Louise M. Berman

Introduction

> ...being human always means
> to be directed to something
> other than oneself.[1]

A World Conference on Education was held, March 5 - 14, 1970, at Asilomar, California. Was this just another conference--a time to hear a few speeches, to shake hands with old acquaintances, to make a few new ones? Or was the Asilomar experience designed to accomplish different objectives from those of the typical conference, and did it accomplish its purposes? What was the meaning of the conference for those who attended, and how can those who were unable to participate in the Asilomar experience reap the benefits of the work begun there?

Whether or not the reader had the opportunity to be at Asilomar, he is invited to consider the Asilomar Conference: its intent, planning, implementation, and outcomes. It will soon be evident that the days spent at Asilomar represented a small though vital part of a larger project.

The Intent

The Association for Supervision and Curriculum Development has a history of interest in international concerns. For a number of years it sponsored a Commission on International Understanding. Then came a few years in which little attention was given to the international scene.

In 1966, however, the ASCD national office received a number of inquiries relating to the Association's role in international education. Out of the expressed interest of certain of the members emerged the Commission on International Cooperation in Education. One of the first and foremost activities the Commission defined for itself was the commitment to a World Conference on Education, "In the Minds of Men: Educating the Young People of the World." Among the purposes named for the Conference were the following:

To initiate cross-national colleagueship

To create a new vision of what education might do for people

To develop new knowledge and skills for improving curriculum and instruction

To make specific plans for continuing cooperation among educators of various nations through a variety of media, leader exchange, cooperative research and experimentation, and further conferences.

In brief, the intent was to initiate the development of a worldwide community of educators who would view their fields in cross-national ways.[2]

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[1] Viktor E. Frankl. "What Is Meant by Meaning?" In: Jeremiah W. Canning, editor. Values in an Age of Confrontation. Columbus, Ohio: Charles E. Merrill Publishing Company, 1970. p. 99.

Planning

As planning continued, ground rules for the conference were developed. Participants were to be representative of all peoples of the world and were to be selected on the basis of professional qualifications only. This requisite was implemented through the solicitation of names of appropriate persons to receive conference invitations. ASCD members, other professional organizations with worldwide interests, research associations, and educational scholars were asked to nominate persons for conference attendance. In instances where no nominations came through these channels, ministries of education and embassies were contacted. In addition, each ASCD state unit was invited to name one person. Other U.S. citizens were invited on the basis of needed expertise. Through this process, approximately 325 conferees were designated representing over 60 nations, the 50 states of the United States, and Puerto Rico. An attempt was made in the program itself to reflect the diversity of the parts of the world represented by the conferees.

Participation by as many nations as possible in the planning of the conference was deemed essential by the Commission. Early plans called for planning sessions in other parts of the world in order to balance any ethnocentric biases the Commission might have. Although funds prohibited the implementation of this idea, students and other persons from abroad on short-term visits to this country were called upon frequently to react to the program. In addition, in 1968, the ASCD Commission on International Cooperation in Education, with the World Education Fellowship, held a meeting in New York. One of the major items on the agenda was consideration of tentative plans for the World Conference on Education.

Simultaneously with program planning, a large group of Californians were working on local arrangements and cultural events. Their planning eventuated in a rich and varied cultural fare.

It should be noted that although funds were sought from various agencies no large grants were obtained. It was only through the contributions of funds, services, and resources from a variety of organizations and individuals that the conference was made possible. Never has a conference seen the goodwill of so many persons. Seemingly the conference called forth the most and best of human qualities in persons as they directed their energies to something larger than themselves.

Implementation

From the time persons arrived on the Asilomar Conference Grounds until their departure, a spirit prevailed which is impossible to capture in a conference report. However, what can be shared are certain of the planned facets of the program such as the plenary session papers.

The plenary sessions were designed to give the participants an opportunity to consider together ideas which cut across nations and across areas of study. The topics tended to be futuristic as reflected in the title of the

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[2] For analyses of dimensions of international cooperation in education, see: Willis H. Griffin and Ralph B. Spence. Cooperative International Education. Background Paper I for the World Conference on Education. Washington, D.C.: Association for Supervision and Curriculum Development, 1970. Also: Alice Miel. "Toward International Cooperation in Education." Educational Leadership 25 (6): 499-501; March 1968.

opening presentation, "Men for Tomorrow: A Challenge for Education." Professor Alvin Loving made the point that the future is already here. Within this context the plenary sessions proceeded, ordinarily one being held each day. School visits supplemented the planned plenary sessions.

A second facet of the conference and one of the most important was the working parties. Meeting for part of each day, these groups exchanged information, developed new ideas, reacted to background materials, and made definite plans for follow-up work and exchange of experience. Plans for study and action included the development of research studies, newsletters, and proposals for making ASCD international in its work and perspective. Working party reports are to be found beginning on page 89.

A third aspect of the conference included the many opportunities persons had to interact during cultural events, meals, and breaks. There were additional times when persons could react to working papers specially prepared for the conference.[3] Basically, this aspect comprised the thoughts, ideas, friendships, and ways of relating that could not be foreseen. It included the unplanned curriculum which emerged from a setting in which participants could help shape the outcomes.

Among the spontaneous activities were a series of discussion groups on such topics as leadership training, outside help to the developing countries in the improvement of education, the development of an international university, the design of learning centers, industrial and technical education, and communication. Walks, bus trips, chances to work in different types of art media, and opportunities for help with photography contributed to full utilization of the picturesque surroundings.

Outcomes

What happened at Asilomar can never be fully known. Working party reports indicate one set of outcomes. However, the questions, reactions, and lingering thoughts with which many participants left the conference invite reflection on the part of thoughtful educators. One conclusion seemed evident: Participants were eager to direct their energies toward creation of a world community of educators. Issues that might have been divisive were resolved, at least partially, so that energies could be turned toward finding solutions to common problems.

Although many persons were using English as a second language, the desire to communicate was high. At times the communication involved clarifying an idea or extending it; at other times, as worthwhile but opposing ideas clashed, communication involved dealing with conflict.

In our search for a better education for all the youth of the world, the Asilomar Conference enabled some persons to scratch the surface in developing a realization of some of the world's common educational problems. With realization comes a continuous responsibility for finding more adequate solutions to the challenges which present themselves. Realization coupled with responsibility and ultimately stamina in carrying out commitments can mean answers to the unsettling dilemmas faced by the educators of the world.

We invite those who were at Asilomar to follow through on plans made at the conference. We also invite other readers to join in developing a world community of educators.

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[3] See Appendix for list of papers prepared for the World Conference on Education.

PART ONE

Plenary Session Addresses

As part of the daily program, one plenary session ordinarily was held featuring an address on a topic of general concern. In many instances the address was followed by one or two brief statements of reaction by speakers from another part of the world. The papers that follow represent nine major speeches given at the conference.

Since the writers represented a diversity of national backgrounds and professional stances, every attempt has been made in the editing to honor the format chosen by each one as well as his preference for either the British or the American form of spelling and punctuation.

Within the available space, the editors have tried to respect the integrity of the writer, his mode of expression, and his wisdom. The ideas of each writer merit thoughtful consideration.

Alvin D. Loving, Sr.

Men for Tomorrow: A Challenge for Education

In the early days of the United Nations, the use of the word "man" caused a great deal of difficulty. The word translated from the English meant the "male sex" and was also interpreted as being exclusive of the female. Acceptance of this interpretation was easy because the attitude toward women in many countries, including the United States, had been one of exclusion. For example, coeducation in the United States did not come about until the end of the 19th century and, in many of our institutions of higher learning, it has not yet taken place.

Women in the United States voted for the first time in 1920, following an Amendment to the Constitution. By that time, two-thirds of the states had ratified this amendment. The State of Georgia, in recent weeks, has just ratified that amendment. Women in Georgia could vote, however, because the amendment became effective on the two-thirds ratification. Those of you from the new nations of Africa and Asia might not understand this because women were offered the franchise at the inception of nationhood.

Men, as I have used it in the title, means mankind--both sexes.

The word "tomorrow" in some cultures may mean more than the 24 hours following 2400 or midnight. It could mean the foreseeable future--a point in time that is relative to a specific action or completion of a given task. When a tailor says, "I'll have your garment tomorrow," a Westerner becomes chagrined when it is not delivered within the next 24 hours. But, except in Hong Kong, who would expect completion of a garment in so brief a time? The tailor is using the Westerner's term, but to him it means the time needed to complete the task.

My use of the word "tomorrow" refers to a point in time when men are ready to assume the responsibility of leadership in a more enlightened and better world. Tomorrow means the future.

In the past, we have said, "Give us a hundred years and we will resolve our differences and build a better educational system."

Harold Shane, in the October 1967 issue of the Phi Delta Kappan, dispelled any notion of taking a hundred years to resolve our problems and concerns about education. His article, "Future Shock and the Curriculum," stated:

> Just as many people from the United States are upset when residing overseas by the absence of familiar cultural clues and suffer culture shock, many Americans are beginning to suffer from future shock. Future shock, like culture shock, is a condition marked by a decline in cognitive powers, misinterpretation of reality, and loss of the ability to communicate ideas with one's usual skill.
>
> We have encountered the future so rapidly and with such violent changes in the ordered and familiar patterns in our way

of life that we are suffering (and here he quotes Alvin Toffler) "the dizzying disorientation brought on by the premature arrival of the future."[1,2]

What Shane was saying is that we have lost sight of reality. Let me help you recall some of the tremendous changes that have taken place in the immediate past. Let us look at science first. We are told that 70 percent of the things we will be using here in America in 1990 have not yet been invented. We are told also that 90 percent of all of the scientists who have ever lived in the history of man are living today. These scientists living now are creating for us many problems that the social scientists and the social engineers will have to solve.

Changes Facing Man

Let us look at one of these problems--the span of life or longevity. It is predicted that many children who walk into the kindergartens and first grades of America today will live to be 150 years old. According to the Statistical Bureau in Washington, there are now more than 12,000 Americans over age 100, and this number is growing. These people were born in the middle of the past century when water was drawn from a well and kerosene was used for lamplight. These people have lived through the last half of the 19th century--a very difficult century--and through the first half of the 20th century, which has been considered the bloodiest century in the history of man. These people lived in a time when the span of life of the average American was 40 years. Today, that span averages roughly 70 and within the next 25 years will reach 90. So does it not stand to reason that if people who expected to live to be 40 have lived to be more than 100, then people who are expected to live to be 90 may live to be 150? Today, we have antibiotics and other medical advances, including the transplantation of the human heart and other vital organs of the body, and we can reconstitute the human cells. These, coupled with many labor-saving devices, assist man in prolonging life.

I made this prediction in a speech in Miami Beach, Florida, a few years ago. I received a letter from a man in Topeka, Kansas, who said: "... Retirement in America is age 65. Tell me, what does a person do for 85 years of retirement?"

Another area of great change is transportation. Fifteen years ago, my family and I first went out to India. It took us 39 flying hours to go from Detroit Metropolitan Airport to New Delhi, India. Five years later, my wife and I, on our way to Africa, flew from the Kennedy Airport in New York to Lisbon, Portugal, in 5-1/2 hours; we could have flown on to New Delhi in less than 20 hours. So, in a period of five years, time of travel had been cut in half.

There was a time when men attempted to go around the world in 80 days. This is more than fiction or a musical show. In 1932, two American aviators, Post and Gatty, circled the earth by plane in 80 hours. This was phenomenal. In 1961, I was in the bush of Africa and I read of the

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[1] Harold G. Shane. "Future Shock and the Curriculum." Phi Delta Kappan 49: 67-70; October 1967.

[2] Alvin Toffler. "The Future as a Way of Life." Horizons, Summer 1965.

American astronaut who orbited the earth at an altitude of 100 to 150 miles in roughly 80 minutes. I am not saying that men will ever circumscribe the earth in 80 seconds. God forbid!

Another drastic change taking place can be found in Central Africa and Asia. We are told that in the foreseeable future, Africa and Asia will be using atomic energy for power.

Let me mention just one other drastic change of today. We speak of a population explosion, but many of us do not realize that this means America as well as India or China or the countries of South America.

Statistics indicate that if the extended birthrate in the United States continues, by the year 2100 the population of the United States will be three billion. This is roughly the present world population, which includes India's more than 400,000,000 and China's 600,000,000. Those of you who are visiting in the United States, as you fly East from California, will look down on plains and fields, ranches and farmland, spread out over this great country of ours. By the year 2100, all of that will be populated. By that time, we will have started a migration across the Canadian border. Canada, with her sparse population, could very well absorb many Americans. A town like Saskatoon, Saskatchewan, will become a city of seven to eight million people, with 5-1/2 million migrant Americans. (I made this comment in a graduate class and I noticed a cloud go over the face of one of the women students. After class I asked her what it was that bothered her. She said, "I'm from Saskatoon, Saskatchewan.")

Another fact the Statistical Bureau indicates is that the nonwhite population of the United States between 1950 and 1960 increased 50 percent faster than the white population. Omitting the Puerto Ricans, the Spanish-Americans, the American Indians, the Hawaiians, and the Orientals, and taking only one group, the black Americans in 1950 numbered one out of every 10. By 1965, one out of every nine Americans was black. Of U.S. children born today, one out of every seven under 14 is black; and one out of every six under age one is black. Now, if this trend continues, by the time we reach our 3 billion population in the year 2100, if a person says, "I'm an Anglo-Saxon," we will have to go to the encyclopedia to find out what he is talking about.

Challenges for Men of Tomorrow

Thus, the first challenge of "Men for Tomorrow" is to use time and space wisely, and to recognize the rapidity of change in our fast-moving world.

The second challenge is the recognition of the reality of the world in which we live. The American astronauts on their way to the moon looked back and remarked, "We see one world." Literally, they were right. In reality, however, we are many worlds. I believe it is the hope of mankind, and of those who are designing the community of nations, that tomorrow we will be one world, peacefully interrelated, where differences will be considered assets and not liabilities.

There are those who see the world as the tourist sees it. They see the world as a thing of beauty and it is truly a beautiful world.

Those of you who flew the Atlantic or the Pacific to reach America must have been amazed at the vastness and the size of this world; you looked down on nothing but water for hours. When one approaches the

Emerald Isle of Ireland by air, he finds it is truly emerald; while on the coast of France, along the blue Mediterranean, the beaches seem unusually white. There is beauty in the desolation that one sees in Beirut, Baghdad, Pakistan, and as one crosses the Rajastan Desert and goes on to New Delhi. One should always arrange to arrive at New Delhi by night in order to gaze down on Connaught Circus and the Secretariat, to see the flashing neon signs of the new city and the flickering oil lamps of old Delhi.

One must stand in early morning and watch the sunrise from Tiger Hill, high above Darjeeling. To see the sun hit the tip of Mount Everest makes one inclined to agree with the Indians that this is the most beautiful sunrise in all the world. One should travel the length of this magnificent country from the foothills of the Himalayas to Trivandrum, where the waters of three oceans meet, and then cross by ferry to the top of Ceylon and travel by train down through the lushness of this, the teardrop of India. One should see a rainbow wrap itself around the island peak of Hong Kong or travel the West Coast of Africa to marvel at the rolling savannah grass hills and the rain forest. Equally beautiful are Buenos Aires and Montevideo and Rio de Janeiro and the Islands of the Caribbean, and I hope the opportunity will be yours, to see the magnificence of America--the Grand Canyon, the Great Lakes, and Niagara Falls.

The real world is not as the tourist sees it. The real world lies beneath the surface and away from the casual eyes of the visitor. As one crosses America, he may not witness the strife, or sense the frustration of its nonwhite minorities. He may meet black university professors and United States Congressmen who are black. He may see a black nuclear physicist at work in his laboratory. He may attend a symphony concert with a black conductor. In fact, he may see Puerto Ricans, Spanish-speaking Americans, American Indians, and Oriental Americans going about their work in the mainstream of America, and not see or know the deep frustrations suffered by the masses of these people. In the same way, one may not realize the frustrations of the Harigans of India, the Tamils of Ceylon, the lesser tribesmen of Nigeria, or the political minorities of France, Italy, or Japan.

Men for tomorrow must be true catalysts, importers of skills and techniques of education. This should be true whether one works as a United Nations educational consultant or is engaged in a unilateral program between his own country and another. Because of cultural differences, political differences, and sometimes socioeconomic differences, any attempt at proselyting, propagandizing, or imposition would be wrong. The role is to help people help themselves.

Varied pictures remain in my mind of four incidents in Bangalore, India. All four incidents were related to the thoughtless and probably innocent imposition of American stereotypes brought by American missionaries and U.S. business employees. There is a cinema presentation of a black American in one film which depicted him as lazy, shuffling, shiny, black, and a buffoon. There is a presentation of a local Christian Church group of an early American minstrel show which also depicted black Americans in a bad light. As a result of the songs of Stephen Foster being sung on Voice of America, the word "darky" was heard throughout Southeast Asia. And finally, there was a young man from the Christian Church of South India who came to the gate of a hotel to sing Christmas carols and to solicit funds for his church. When my son took a rupee down to him, the young man recognized my son as a member of the only black American family in town. To show his appreciation, and to make us feel at home, when he finished his carol, he began to sing a song from Showboat, an early American musical. The words were: "Niggers all work on the Mississippi--Niggers all work while the white folks play." I explained to him that we in America now had become sensitive to the feelings of people and no longer sang the songs the way they were originally written. He apologized. I said to him, "You are absolutely right. This is the way the song was written and brought to you but nobody has bothered to tell you that we in America now are concerned." The next day he came back to the hotel and we talked a long time.

Men for tomorrow must have a respect for human dignity.

Seemingly the more education one has, the easier it is for him to perceive difference. The kind of education that he has determines how he interprets that difference. If the study of social studies is factual, chances are that a youngster will be able to appreciate the differences in people--differences in religion, color, facial characteristics, and hair texture. He sees these as natural phenomena. If one is taught narrowly about people, his perception is narrow and he is, therefore, unable to be honest and fair.

Let me give you an example of the kind of material which, if not supplemented with additional reading and explanation by the teacher, may cause warped attitudes in the minds of youngsters. My wife and I were visiting with friends of ours in Bombay, India. The father was a physician. The mother was a school teacher. They had a bright, talented youngster who was in standard 3. The child offered to read her book, believing every word she read to be a fact. The title of the section she read was "The Black Woolly Headed People of Africa." The book was a Cambridge edition. The general tone of the article was negative and offensive to Africa. This little Indian girl was brown. Her mother was brown. Her father was darker than I. Their hair was not woolly. The nature of the article equated inferiority with woolly hair. I suppose the same thing is done in many books around the world, when they proceed to describe black people, yellow people, red people, and yes, white people. Men for tomorrow who will be directing our teacher education institutions must be sure that information is true, honest, uncolored, and complete.

Men for tomorrow must be men of vision. The same pace that affects science, transportation, and health also affects education. Education, therefore, must go through the same kinds of changes to cope with changing times. There is nothing sacred about the way we do things today. So it will take men of vision to make the kinds of curricular changes that are necessary to equip the young people of the world to cope with the world of tomorrow.

What I have been saying is that we no longer live in the present--already we are living in the future and the future is moving at a very rapid pace. So the social engineers of the world, the educators, the social scientists, must adapt their thinking and their actions to these changing times. I can envision a world of tomorrow where there are no classrooms or school buildings or examinations as we know them today. I can envision a school--not a school really--I can envision education tomorrow. I can envision people learning all that it is necessary for them to learn and becoming as expert as necessary within the confines of their own home with the use of electronic devices--audio and video.

I can envision a youngster having programmed himself for the area in which he wishes to specialize and, through computerized systems, having prepared himself down to the point of the practicum. If he wants to be a surgeon, then it will be necessary for him after a period of time and after having achieved a certain amount of knowledge to attach himself to a surgeon and, just as we did back in the days of the guilds, develop the proficiency necessary to make him the good surgeon that he wants to be. If this is to be the education of tomorrow, then must we wait for tomorrow to prepare for it? Let us begin now--let us make today our tomorrow!

W. Senteza Kajubi

Is the School an Obsolete Institution?

Today, "going to school" is one of the most important activities in which human beings engage. Of the 3-1/2 billion inhabitants of the earth, about 400 million, or the equivalent of the entire population of India, are engaged in full-time schooling.[1] In 1970 there are probably 57 million youngsters in the public and private schools of the United States alone; and 90 percent of all young people in that country remain at school until they are 17 years of age. In Africa the numbers are small; nevertheless, in 1963 over 26 million children, or about 10 percent of the entire population of the Continent, were engaged in full-time schooling.

Large architectural firms around the world are becoming increasingly concerned with the designing and building of schools. The Five-Year Plans of Developing Countries devote disproportionately large sections to this aspect of national development. There is no doubt that the phenomenon of schooling has become a major preoccupation of all societies of the world and a first call on the resources of all nations. The human race has developed an unwavering faith in the power of education through formal schooling.

The enormous and growing commitment to school as the chief means of educating the young people naturally raises some questions: What is a school? For example, is the young girl in Africa who is learning to pound maize in a wooden mortar under the guiding hand of her grandmother, or the young boy who is learning to look after cattle with his father, going to school? Is the class under the tree in the bush a school, as well as Abington, Pennsylvania, High or Winchester Public School? What is a school? What can we learn at school that we cannot learn at home? If a definition of a school can be agreed on, what would be the implication of the continued reliance on the formal school institution as the chief vehicle of conveying education to the young people of the future in a rapidly changing and shrinking world? Do the amount of human effort and the commitment to, and involvement in, formal school education pay sufficient dividends for us to continue this exercise? In other words, should we continue in the future to place the same faith in and devote the same emphasis to the school as we have in the past?

This paper tries to examine the limitations of the school as a means of educating the young, and to make a few suggestions, in the light of these limitations, about alternative forms and processes of educating the young. While the role of the school in highly complex and industrialized countries of the world is kept in mind, the major emphasis is on the problems of developing countries, with particular reference to Africa, from which the writer draws his experience.

The School in the Homestead

Education is often associated with schools and what teachers do. It is often thought that education starts at school and that the role of educating is confined to the formal activities of school. It is too often forgotten that education and the schools are not the same thing, and that what goes on inside the school is not necessarily always education.

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[1] UNESCO. Statistical Yearbook 1965. New York: UNESCO Publication Center, 1966. p. 105.

All societies face the task of preparing their young for full membership in the adult community and all cultures include education as the principal means of perpetuating themselves. Education has, in fact, been defined as the process of enculturation. This process is accomplished in different ways and schools exist in varying degrees of "schoolness."[2] These range from the unconscious and informal observations that children make of elders in the family to the more organized and formalized school situations. They include the "bush schools" and the circumcision and initiation ceremonies as well as the modern classroom of Abington High with closed-circuit television and a dial-access system.

In pre-colonial Africa and indeed in all preliterate societies, there were no school buildings, but this did not mean that the children were not educated. They learned by living and doing. The homestead was the school.[3] In the homes and on the farms, the children were taught the skills which would enable them to play their full part as adult members of their society. They learned by direct observation and imitation. By this method, the boys learned how to distinguish useful grasses and dangerous weeds, how to stalk wild game, and how to stock sheep and goats; and the girls were similarly taught the special skills related to their sex and age, such as the preparation of meals and looking after babies. All children were taught tribal history by oral tradition and were also helped to acquire the sacred cultural mores and attitudes as well as the modes of behaviour which were valued by their society.

While the mothers prepared the evening meal after a long working day, the grandmother kept the children awake by telling fireside stories and by asking them to find answers to riddles and puzzles. Through these stories, in which the hare outwitted the elephant, and the tortoise outran the hare, the youngsters learned that wisdom is better than physical strength, that good should be rewarded and evil punished, and that humility is more to be prized than ostentatiousness. There were many gods, but each had his own special responsibilities and his own locality, and there were seldom religious feuds between the worshippers of one god and those of another.

Let it not appear, however, that there is any attempt here to glamorize and romanticize tribal education. It was limited in scope, all children being given more or less the same kind of instruction according to their sex and age. It depended on custom and tradition and thus had a past orientation. Innovation and creativity were often ignored and, since there was no writing or reading, memorization and recall of information played the key role in the teaching and learning situations.

Traditional education was, on the other hand, directly relevant to the needs and problems of the tribal society. It produced emotionally stable and economically productive members of the community and, above all, it was compulsory and free for all the children. There was no shortage of teachers, for every adult was a teacher to a lesser or greater degree.

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[2] J. M. Stephens. The Process of Schooling. New York: Holt, Rinehart and Winston, Inc., 1967. p. 24.

[3] Jomo Kenyatta. Facing Mount Kenya. London: Secker & Warburg, 1968. p. 99.

Every old man or woman was a reference library and resource center. Nature itself was the playground.

The Formal School

As societies become more complex, the processes of socialization and enculturation also become more intricate and specialized. Differentiated institutions become necessary to ensure the orderly transmission of culture from generation to generation. The most important among the institutions which have evolved is the formal school. As life has become more complex, the school has assumed more functions. The extended family, which was once the primary agent in shaping the child's interests, values, and personality, has given way to the school. The school has everywhere become the chief agent of educating the young.

In most African countries, the first schools were established by the various missionary societies. They had two main aims: first, to gain converts, and second, to train clerks, artisans, and other menial workers required by the newly established colonial administrations.

With the establishment of the mission schools, the task of formulating moral values and training youth in the proper ethical systems was relegated to the church and the schools. The churches, through the schools, aimed at extracting the children from the traditional "heathen" communities and at giving them a new set of values--the Western values of individualism and social class and the Christian core of values based upon human brotherhood, monogamy, chastity, and all the beatitudinal teachings of humility and the life hereafter. Most aspects of the cultures of the indigenous people, such as traditional music and dances, all forms of artistic self-expression, and even their names were regarded as more or less evil influences which must be kept away from those who went to school. In Luganda--one of the vernacular languages of Uganda--the word for "mission station," the center where the church, the boarding school, and (usually non-African) priests and teachers were found, is "Ekigo" or "fort," with the inevitable implication that the school, built on top of a hill apart from the community, aimed at fortifying the students against the influence of the community. The values and skills taught in school were frequently at variance with current practice at home and in the community as a whole.

With the attainment of political independence, the time-honoured official sanction given to missionary enterprise in the field of education and the role played by the former colonial powers as the chief source of values have been questioned. Deliberate attempts are being made to bridge the gap between home and school, to draw inspiration from the past, and to plant the roots of African education in African soil. Indigenous music, art, folklore, and riddles are being incorporated into the curricula of schools. History, geography, and science syllabuses and teaching materials which take account of the local environment are also being developed.

Yet, despite these improvements, the school in its present form is giving only a partial and poor response to the needs and problems of developing countries. Some African countries are already spending a very high proportion--six to eight percent of their Gross National Product and 25 to 30 percent of their annual budgets--on education. Despite this zeal and commitment of public funds to education, only about 50 percent of the children in the primary school age group are receiving more than a few years of schooling and only about two to four percent of the children in the secondary school age group can be accommodated in the high schools. Education in its present form is proving to be a very expensive commodity relative to the ability of the economies of developing countries to pay. Philip Coombs has demonstrated that most developing countries, like Alice in Wonderland, will have to run as fast as possible just to keep in one place, in other words, to maintain the current participation ratio of about 50 percent.[4]

Therefore, a large percentage of the children in these countries will remain out of the formal school system and may thus be condemned to the world of permanent illiteracy, cultural deprivation, and unemployment from which there appears to be no escape.

In these circumstances, the conventional school of one teacher standing before one class of children behind their desks cannot meet the challenge of taking education to all the children who are demanding, and are entitled to, education throughout the world. In developing countries, for a long time to come, about half the children of primary school age, and 90 percent of the children of secondary school age, must stay out of the school system, if the formal school alone is going to be relied upon in its present form. The question which is difficult to answer in these circumstances is this: When there is only one chair for every two children of primary school age in the country, and only three or four stools for every 100 children waiting outside the door of the secondary school, how do you select those who should get in and those who should stay out? Every parent naturally feels that his own child must get in and that it must be the other man's child who should stay out of the school.

In their last year of primary school, the children must sit tests in English (or another foreign language) and mathematics, the purpose of which is to sift the lucky few who are thought worthy of benefiting from secondary education from those who are considered unworthy of this privilege. Through these examinations, which in the case of an individual child may mean the difference between becoming a medical doctor, on the one hand, and an unemployed street loafer, on the other, the children acquire a highly competitive and sometimes selfish spirit, which is in contrast with the community of self-help, national cooperative movements that these countries are trying to foster.

Despite the fact that the majority of the children in these countries never see the inside of a secondary school, primary education is generally academic and literary in character, aiming at the preparation of children for secondary school, and the secondary school is only a narrow footbridge to the coveted university.

Teachers are in short supply and are inadequately trained or even untrained. Teaching methods in most schools are still formal, emphasizing drill and the transmission of information, instead of stressing understanding and creativity. In other words, school children spend most of their school time accumulating and storing what Whitehead referred to as "inert ideas that are merely received into the mind without being utilized, or tested, or thrown into fresh combinations."[5]

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[4] Philip H. Coombs. The World Education Crisis--A Systems Analysis. London: Oxford University Press, 1968. pp. 56-57.

Consequently, the school system is being criticized. It is regarded by many political and educational leaders as a means of disorienting the children from the realities of life as it is in developing countries, and as an institution which is failing to respond to the needs of society in the new nations.

The overconcern of schools with book learning and examinations tends to divorce the school from the world of reality. The school extracts the children from their social and cultural milieu and prepares them for a future which often does not exist in their country. It encourages in them a distaste, if not contempt, for manual labour. The result is that the children educated in school expect to become dependent upon a particular type of white-collar employment.

The most serious limitation of the school in developing countries, however, is that it can reach only a small proportion of the school-age population. The majority must, for a long time to come, be unreached by this institution and, consequently, will remain illiterate and culturally deprived.

Current data indicate that 49 percent of the individuals who populate this shrinking globe are illiterate, which means that one out of every two human beings can neither read nor write. Statistics further show that even the United States, the richest and most educationally and technologically advanced of the nations in the world, still has three million illiterates. Is this a normal state of affairs, a condition which the world can accept and survive within the next decade?

One hundred years ago, the greatest American President--a man who even today maintains an image of admiration and respect throughout the world--declared that this troubled nation could never survive, let alone prosper, half slave and half free. Now, when the world is more sophisticated and more technologically oriented, is it logical to expect that the human race can survive, let alone prosper, half literate and half illiterate, half sighted and half blind? If our answer is in the affirmative, then perhaps our assignment at this Conference is just an academic exercise.

Dr. Milton Obote, President of the Republic of Uganda, has stressed this point:

> ...We cannot afford to build two nations within the territorial boundaries of one country: one rich, educated, African in appearance, but mentally foreign; and the other, which constitutes the majority of the population, poor and illiterate.[6]

The conventional school is ill-equipped to combat this problem. Even if the primary school system could be extended to cover all the children in the relevant age group, this would do little in the short run to combat the problems of mass illiteracy throughout the world, and in the long run this solution would be too expensive and would take too long to have an impact. Schools open at eight in the morning and they close at four in the afternoon. They are open for only nine months in the year, the rest being school holidays. The school plant is thus under-utilized, and the teachers are in a way under-employed.

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[5] A. N. Whitehead. The Aims of Education and Other Essays. London: Ernest Benn Ltd., 1954. p. 2.

[6] A. Milton Obote. The Common Man's Charter. Kampala, Uganda: Consolidated Printers, 1969. p. 12.

Moreover, the children to whom the school directs its attention take a long time to grow into adult men and women. Society cannot wait until the school children being educated today are grown, in order to get the economic and social development it desires. Means and techniques must be found which reach far beyond the confines of the school and encompass the majority of the adult population and out-of-school youth.

The school must integrate itself with the community. It must become a social and cultural centre where not only the children but also their parents come to receive continuing education. The school must shift its emphasis from the production of "educated" men to the creation of educable societies.

The Primary School Leaver Crisis

One other current problem facing developing countries centers on the stream of primary school leavers. The number of children who complete the primary school, but for whom neither further education nor employment opportunities in the modern sector are available, is increasing very fast. To take two examples: in Kenya, the estimated number of children completing the seventh grade, that is the top of the primary school, will rise from 150,000 in 1970 to almost 250,000, of whom only 10 percent will be absorbed in publicly supported secondary schools.[7] In Zambia, of the 63,000 1969 grade seven leavers, 50,000 will be unable to find places in secondary schools. It is estimated that this number will have doubled by 1975.[8] One could go on ad infinitum.

Most of these children have high job expectations. They drift to the towns where they believe these jobs to be. Denied further educational opportunities, rejected by the urban labour market, but too young, and perhaps considering themselves too "educated" to go back to the traditional semi-subsistence farming, they go out into the world like displaced persons.

These circumstances are forcing a number of countries to reexamine the curriculum, the functions, and the organization of the school in agriculturally-based societies. The school, if it is to play its proper role, must inculcate in the children appropriate social attitudes of living and working together in rural communities. It must produce good farmers. In Tanzania, for example, the schools, especially secondary schools, are now expected to become economic communities as well as social and educational communities and to contribute to their own upkeep. Each school should have, as part of it, a farm or workshop which provides food for the community and makes some contribution to the total national income.[9]

No one, however, should be under the delusion that the manipulation of the school curriculum per se to include agriculture will change the attitude of school leavers towards farming, and thus arrest the massive rural-urban exodus which is endemic in most developing countries. Efforts to ruralize the curriculum in several low-income countries have not induced this change.[10]

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[7] Republic of Kenya: Development Plan 1970-1974. Nairobi, Kenya: Government Printer, 1969. pp. 6, 458.

[8] Carol Angi and Trevor Coombe. "The Primary School Leaver Crisis and Youth Programmes in Zambia." Unpublished paper prepared for the University of Zambia School of Education, 1969. pp. 1, 17.

[9] Julius Nyerere. Education for Self-Reliance. p. 17. See also: William Dodd. Education for Self-Reliance in Tanzania. New York: Teachers College Press, 1969. pp. 1-4.

Paradoxically, "the problems of agricultural education are not primarily agricultural."[11] They have their roots in economic factors, basically in the wide gap in economic opportunities between the rural and urban sectors of the economy. The solution to these problems involves physical planning, provision of capital, organization of the marketing of produce, and other facets of development planning aimed at the transformation of the rural areas to make life there more attractive. These are not matters of the school curriculum. As the Kericho (Kenya) Conference on Education, Employment, and Rural Development concluded, the only thing which can check the rural-urban drift is the visible evidence that farming really pays.[12]

This is not to detract from the importance of ruralizing the curriculum, but rather to suggest that the school should not be looked at in isolation from other aspects of life in the community.

Several African countries have formally organized national youth services to try to alleviate the problem of school leavers.[13] These organizations seek to orient their members toward the task of national development. The specific objectives, according to the Kenya National Youth Service, are "to inculcate good citizenship and provide an opportunity for education and training which will make them productive, skilled workers or farmers."[14]

Youth movements could play an important role in reaching out-of-school children, and school children out of school hours. Israel has experimented successfully with youth movements, and it is said that the Kibbutzim which are a remarkable feature of Israeli social and economic life were a product of youth movements. In Kenya, another experiment--the village polytechnic--is under way. This is a very simple low-cost training centre for school leavers to provide them with opportunities for developing their character and changing their outlook on life, also to provide them with skills, the exercise of which will fill a need in their home. The courses are primarily residential and are structured in such a way as to fit localized manpower requirements.[15]

It is too early to assess the impact of national service, of the youth movement, and of the village polytechnics. They should be viewed, however, as worthwhile experiments aimed not only at supplanting, but at supplementing the formal school. They also attempt to achieve what the school has so far failed to do, that is to imbue the youth with a national we-feeling of identity, and to prepare them for the realities of life in their respective countries.

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[10] V. L. Griffiths. "The Education of the Young in Rural Areas." In: James Sheffield, editor. Education, Employment and Rural Development. Nairobi, Kenya: East African Publishing House, 1966. p. 310.

[11] Uganda Education Commission. Education in Uganda. Entebbe, Uganda: Government Printer, 1963. p. 34.

[12] James Sheffield, editor. Education, Employment and Rural Development. Nairobi, Kenya: East African Publishing House, 1966. p. 23.

[13] See: A. W. Wood. Vocational and Social Training of Primary School Leavers in African Countries of the Commonwealth. London: Commonwealth Secretariat, 1969.

[14] Republic of Kenya: Development Plan 1970-1974. Nairobi, Kenya: Government Printer, 1969. p. 537.

[15] Ibid., p. 540.

Is School Not Too Late?

An impressive array of psychologists who have made intensive studies of the intellectual growth and development of children have come to the conclusion that the period from birth to about age six is of vital importance to the individual's future cognitive development. Benjamin Bloom, for example, estimates that half of mature intelligence is developed between birth and four years, and another 30 percent by eight years.[16] One-third of future school achievement is determined before the child enters school. O. K. Moore, a Yale sociologist, contends that the early years of life are the most creative and intellectually productive years of our lives.[17]

Yet the conventional school system starts after these vital years. The school begins to play its part, as it were, after the die is cast. In a world which is becoming more and more complex and demands more highly skilled and talented workers, this neglect of the first five years of an individual's life is amazing. In some developing countries, because primary education is terminal for most children, it has been suggested that the age of entering school should be raised to nine or ten years.

What are the implications of leaving children at home in what is often a sterile and impoverished traditional environment during this critical period? In most homes there is a dearth or total absence of books, pictures, magazines, radios, and toys which would create a stimulating environment for the children. Moreover, the lowest academically qualified and least professionally able teachers are usually assigned to the lowest classes, thus making remedial instruction impossible. Bloom has suggested that deprivation in early years of childhood can have far greater consequences than deprivation in later years.[18] Is this not an extravagant waste of talent--a scarce resource--which the world cannot continue to afford?

In the face of this evidence, what is the logical reason for taking the children to school at six or seven years of age after "the most creative and productive years of their lives" have been wasted academically, perhaps never to be retrieved?

The studies mentioned above are based on observations in North America and Europe. No such extensive studies have been carried out in Africa, or perhaps in any other parts of the developing world. Let me suggest that there is a crying need for programs of research in child growth and development in African countries to provide a framework of knowledge on matters such as these on which to build school curricula that are meaningful in terms of the social and physical needs of children in the African social and cultural milieu.

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[16] John P. De Cecco. The Psychology of Learning and Instruction: Educational Psychology. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968. p. 213.

[17] George J. Mouly. Psychology for Effective Teaching. Second edition. New York: Holt, Rinehart and Winston, Inc., 1968. p. 24.

[18] John P. De Cecco, op. cit.

If we assume for the time being that the findings of Bloom and others have universal validity, then the implications are straightforward. We must pay far more attention to the early years than we have done before. In developing countries, this may take the form of the school's playing an active part in the education, not only of the pupils, but also of the parents, to help them to realize the importance of the home to the future education of the child. Village play centres also can be established to provide a more stimulating and creative environment for the "preschool" child.

I cannot speak with any practical experience, let alone confidence, about the school situation in the highly industrialized and overdeveloped countries of North America and Europe, where education as everything else is in a state of ferment. Great strides have been taken in these countries in the direction of curriculum reform and classroom organization, to accommodate the school to rapidly changing and more complex situations. The last ten years have seen some fantastic feats and startling changes in curriculum development which are a revolt or near-revolt against the time-honoured ways of teaching and school organization. I am thinking of the development of the new mathematics, PSSC and Nuffield science, new ways of teaching foreign languages, team teaching, a more widespread use of educational television, programmed textbooks, and a host of other individualized self-instructional devices which teach the students how "to go it alone."

An increasing number of schools are successfully facing a great many of the problems which baffle us in the developing countries. For example, the best of them are now equipped to treat each student as an individual, making the most of personal strengths and working to correct weaknesses, and many of them are thus offering a first-rate education to all students--not just the college-bound. The traditional concept of the school as a set of classrooms in which instruction is given by individual teachers to groups of pupils of the same age or ability is beginning to give way to the concept of the school as a learning resource center. Rigid classroom walls are crumbling before the impact of more flexible scheduling. Chalkboards and single textbooks are yielding to overheads, microfilm readers, tapes, dial-access systems, and a complex of mechanical devices aimed at helping the learner to paddle his own canoe.

These and other innovations, however, are still confined to the top few of the best schools, which have money combined with foresighted leadership. The idea of the school and the teachers as a learning resource center has not yet caught bush-fire. In the majority of the schools the traditional patterns of classroom instruction and organization still persist.

There is need for education to take "a questioning look" at itself.[19] For example, is it essential that all students must spend the same number of years to go through an elementary or secondary school course? Must all pupils sit still for six or eight hours a day before a teacher? Can we not seek ways of increasing the quality and quantity of educational facilities within the limits of the resources available--ways which would help to lessen and even to close the gap between the educational haves and have-nots? Is this possible? Or must we learn to live with the present situation where half the population of the world cannot gain access to the secrets of education closed behind the doors of the school?

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[19] A number of searching questions are raised and the need for the modernizing of education is stressed by Philip Coombs in The World Educational Crisis--A Systems Analysis, op. cit.

These are difficult questions. Yet they all point to one conclusion, and that is that we must be prepared to do what we have not done before. The school cannot respond to the challenge of children who demand and deserve more and better education today, merely by doing well or better what was done in the past.

Television and/or radio, used in conjunction with self-instructional correspondence materials, may in the long run prove to be the only practical means of bringing education to all the children and adults who want to learn. The experience of American Samoa has already revealed the tremendous potentialities of modern instructional media in developing countries.[20] Through television, which is installed in almost all Samoan primary schools, Samoan children receive education from master teachers whose teaching is more concerned with ideas, understandings, and insights than with memorization of relatively unrelated facts, while the planning, presentation, and reinforcement of follow-up procedures are developed cooperatively with the regular classroom teachers. Through this "team teaching," the children as well as their teachers can be exposed to good teaching techniques, which would be out of the reach of most children in the traditional school system. It is teaching and in-service education in one package. The same system can be used for instruction in adult literacy and general continuing education connected with the specific needs and problems of the community. A similar project is under way in the Ivory Coast, where it is expected that by 1980 all primary classes will be equipped for television teaching and that 80 percent of the primary school age children will be taught through this medium.[21] It may be noted in passing that many developing countries have already invested heavily in television and radio systems which are currently under-used.

In conclusion, there can be no question about the enormous value of the formal school, and the pivotal role it will continue to occupy in the educational systems of the world. If it is to do this effectively, however, there is need for the school to adapt itself to rapidly changing conditions. The community and the school must come closer together. This is not to suggest that parents should take over the professional role of the educators, or that the school should invade the home life of the students. It does mean that the school should become a social and community center where pupils and their parents meet for lifelong learning. In other words, the wall of separation which has existed between school and society must be broken down. School curricula must be increasingly more concerned with community needs and problems, as well as with the continuing education of the parents. If this transformation of the school is to be successfully achieved, we must pay special attention to the education of the teachers.

Finally, the school must modernize itself through the more systematic use of the means which modern technology has placed at our disposal, in order to make more and better education available to all the children of the world. We must not be satisfied with the situation where half of the human race is kept in cold storage in a world of permanent illiteracy and cultural deprivation, for we have discovered the truth of the Ki-Swahili saying that Utajiri wa nchi ni Wananchi, "The wealth of the country is its people."

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[20] Vernon Bronson. "Case History--American Samoa." An unpublished report written by Vernon Bronson, Executive Consultant, National Association of Educational Broadcasters, U.S.A., 1966.

[21] Uganda Argus, January 5, 1970, Kampala. p. 3.

Torsten Husén

Useful Functions for the Schools of the Future

Educators who speculate imaginatively about the future of the institutions they deal with are supposed to start from a number of reasonable assumptions about the matrix of tomorrow's society. Some of these assumptions are highly reasonable, while others certainly must be looked upon as dubious or even highly controversial. The margins of uncertainty which govern here are not least determined by unforeseen technological innovations, irrespective of whether these are regarded as advances or calamities.

I shall begin my attempts to outline what the schools will look like in the future by making certain assumptions about society at the end of the century, and in so doing, separate assumptions about the society at large from those which pertain to the working life. As you will immediately realize, these assumptions by and large apply to the technologically and economically developed societies but in longer perspective are relevant to all societies. The consequences for education will then be drawn from these assumptions. However, the attempts to form a picture of tomorrow's school must also be based on assumptions relating to the educational system itself, for example, assumptions about facilities such as audio-visual aids and teaching machines, and about buildings, methods, and training of teachers.

In the decades to come we shall have to reckon with an accelerated process of change in many respects. This will apply with particular force to the economy, where rates of growth in at least some highly industrialized countries are tending to increase. This growth will be accompanied by a rise in individual standards of living. Applications of electronics and computer technology have triggered off a second Industrial Revolution. A problem common to both developing and industrialized countries is the "culture lag" not only of institutions (as in the educational system) but also of attitudes and values. They derive from a state of society where the external determinants of technology, economics, and institutions were different. An example is the impact that the introduction of contraceptive pills may be expected to have on the existing sexual morality.

Indeed, the rapid changes wrought by technology in working and living conditions cannot avoid generating cultural maladjustments. For the majority of individuals, great strains are imposed by new techniques, new material conditions of human existence, and new interpersonal relations. The new technology will require many people not only to continue and supplement their previous education, but even to undergo actual retraining because occupational experience and skills quickly become obsolete. Changes of occupation or job will entail great geographic mobility. New sections of the community, embracing different kinds of technicians and experts, will become more influential. A pluralistic value-climate will be hard on the many people who want clear-cut guidelines for their judgments and actions. The risk of maladjustment reactions as embodied in fascist ideology will probably intensify the greater the discrepancy becomes between technology and value patterns.

Urbanization will continue at an accelerated pace. Social controls are weaker and contacts between generations fewer in the urbanized environment than in the countryside or village, where everyone knows his neighbor and where the individual is far more "visible" than in the anonymous fabric of the city. In recent years the informal contacts in large enterprises and organizations have made the so-called alienation problem more pronounced than before. The individual finds it difficult, in the perspective of the larger, imponderable whole, to view his own contribution and, indeed, to define his own identity. Under such circumstances, fascist and other salvation ideologies can capitalize on the collective reactions of maladjustment.

Family and Leisure

The functions of the family as an institution have been very much changed in the industrialized and urbanized society. What has happened is essentially the following: Families have fewer children than in the past. The family performs fewer common functions. Families of yesteryear which tilled the soil or pursued a craft were frequently real communities of both work and leisure. Today's livelihoods are earned outside the home, and not only by the paterfamilias. The mothers of more than half of today's urban families work, either full-time or part-time. Their children stay much longer in school. It is becoming increasingly common to have different kinds of institutions look after them before they start regular school. By and large, this transformation may be said to have left the family with two functions: reproduction of the human species and socialization of the very small children. The two other main functions, that is, the economic and the protective, have been increasingly assumed by the society at large.

On the other hand, increased leisure in the wake of shorter working hours outside the home and longer weekends points in the direction of greatly enlarged "cooperation in amusement and play." The weekend cottage, the car, and the joint pursuit of hobbies combine to give the family a growing body of shared experiences. During the next few decades the rising standards of living will confront the family with the choice of increasing either consumption or leisure. Leisure has been enhanced by all sorts of technical timesaving devices. At the same time the question of how leisure can be employed toward better self-realization, the creation of sensible "time fillers," has taken on greater urgency. Longer life expectancy and the tendency to concentrate childbearing in the early years of marriage have enabled a growing proportion of wives to play other roles than keeping house and raising children.

It has been emphasized that the penchant of contemporary society for molding "organization men," that is, people who present the appearance of being well-adjusted, conformist, faceless, and effective workers in the firm, organization, or "movement," will impart greater strength to the family as an emotional anchorage. Because of increasing geographic mobility and because contacts with most people outside the home are bound to be superficial, and above all ephemeral, marriage provides a facility for emotional ties and role identity that other social groups cannot offer. A corollary of this observation is that the organized authorities, the school, etc., will become more and more impersonal and will be less and less disposed to permit the individual to "let off steam." The family can then become the place where frustrations and anxiety will find a more uninhibited outlet. In a world otherwise characterized by casual and impersonal relations, the family will thus become a forum for the sharing of emotions and the partaking of intimate solidarity.

Mass Communication

Mass media and growing geographic mobility will increase communications not only within countries but also between them. To an overwhelming extent, the world of tomorrow will be a world of internationalism. Advance in the developing countries toward controlling the population explosion will permit a rise in living standards and educational levels. During the next few decades the task of coping with poverty and famine, which is now the lot of most people on this earth, will become a main task of the industrialized countries. Broadened international communication will make the masses of Asia, Africa, and Latin America increasingly conscious of the gaps in living standards, which in turn will give rise to social revolutionary movements. On the whole, it is likely that the rapid adoption of Western technology by developing countries will afflict them with problems of cultural adjustment and social change greater than those experienced in the Western industrial countries.

Communication satellites can make an increasing number of people more vividly aware of world events than ever before. This will give greater urgency to the problem of imparting a representative character to reality in mass media generally, and in television in particular. More and more of the reality to which people react in the mass communication society is the reality which mass media convey, and less that which they themselves directly observe. An event that is not covered by mass media tends to be one that simply does not exist. From this it follows that the determination of what shall be communicated, for example over television, must essentially rest with the community at large and not with commercial interests.

Higher standards of consumption have been accompanied by a vigorously expanding advertising industry. Whether he is buying capital goods or consumer goods, the individual is confronted with a growing dissonant chorus of pitchmen.

Health Problems

Improved material standards have been achieved by technology at the price of serious health problems. The waste products of our technical civilization are in the process of destroying water and air. The ruthless exploitation of natural resources will impoverish coming generations unless drastic restrictive measures are taken promptly. It may be assumed that technicians and urban planners will soon be much more aware of the litter problems and health hazards posed by technology, and hence more willing than the present generation to deal with them effectively.

The very style of life in modern society creates health problems of its own. The stepped-up tempo of life and the diverse causes of frustration associated with a more complex and rigidly bureaucratized society will make cardiovascular diseases increasingly common, with overeating as a contributory cause. A task of growing importance for the community at large will be to sponsor programs of health education. By virtue of medical advances, which will surely also overcome the cardiovascular diseases in due course, average longevity will increase even more. That fact of itself, together with a trend toward individually selected retirement age, will enable an ever larger proportion of people to reach an age which makes it necessary to find meaningful pursuits even after the termination of regular careers.

Bureaucratization

As observed earlier, society is increasingly characterized by large units and big organizations within both the private and public sector. We are rushing headlong into an organization society. Public agencies of government and administration will continue to expand, a consequence not only of the need for better planning, coordination, and control of such activity in the increasingly complex society, but also of the tendency toward "empire-building" inherent in the bureaucratic system itself.

An overshadowing social problem for the future, and hence an important political problem, will have to do with how the individual can avoid being "alienated" in mass society, and with how we shall be protected against injustices committed by bureaucrats in government agencies, unions, and private firms. It seems likely that efforts will be made at workplaces and within organizations to create a counterpart to the emotional anchorage that the family provides.

The Learning Society

Society a few decades from now will be less likely to confer status on the basis of social background or inherited wealth. To a growing extent, educated ability will be democracy's replacement for inherited social prerogatives. The technician, the expert, and the scientist will become a more important person not only on the strength of his know-how and proficiency in planning, but also because the information he gives to policy makers will be so complicated that they will increasingly tend to waive their authority. The question of expertise versus the "common sense" of ordinary people boils down to weighing the relative merits of general education and vocational training. The future society is likely to be more "meritocratic" in the sense that ability and education will matter more for social mobility than in the past.

Among all the "explosions" that have come into use as labels to describe the rapidly changing Western society, the term "knowledge explosion" is one of the most appropriate. Reference is often made to the "knowledge industry," which refers both to the producers of knowledge, such as the research institutes, and to the distributors of knowledge, for example, schools, mass media, book publishers, and libraries. On the horizon looms the possibility of communicating both visual and verbal information to individual terminals, installed either in classrooms or in homes. Learning transmitted in this way can be controlled by information-producing programs which are stored in computer memory units or otherwise kept in some central facility where they are accessible in a form which suits the individual. To the same extent that information more easily becomes available it will be necessary to examine subject matter presented at school much more thoroughly than now with reference to what has to be memorized.

The passage of another two decades ought to see near-total realization of the principle of equal opportunities for everybody to receive as much education as he is thought capable of absorbing. Economic and geographic barriers will be virtually dismantled. The lagging attitudes in different social strata, namely that to receive a certain type or amount of education is either "proper" or "improper," will have practically vanished. In many countries on both sides of the Atlantic, parents of the children who start school in the 1980's will themselves have grown up when universal secondary schooling was introduced. They will have high aspirations for the education of their children, higher than they themselves set, even though a large proportion of them will have qualified for university entrance.

At the beginning of the 1980's, it is likely that in several highly industrialized countries, like the United States, Japan, and Sweden, at least 80 percent of an age cohort will pursue an education (though not necessarily in school) up to the age of 19 or 20. The only limits on personal aspirations will be those imposed by allocation of the national resources. This means that the higher seats of learning, in which a majority of young people around the age of 20 are enrolled, including the institutions which give basic university degrees, will become centers of culture in a quite different way than before. Sheer numbers will turn these undergraduates into a power factor, whose significance will be realized by the mass media and the consumption industries which aim at the youth market.

By comparison with earlier generations, the young people in tomorrow's "learning society" will be much more articulate. Equipped with broader horizons and greater awareness of world problems, and also because fewer of them will have had to "work their way up" than did their parents, they will be searching for other goals and other meanings to life than "getting on" in the world. In several so-called affluent countries young people are already rejecting the puritan ethic of the hard-working man under whose auspices their parents "made it." This means that the gap between generations might widen, in any event the gap which relates to values as to what is socially desirable.

In consequence of the "youth revolt," young people will demand--and get--increased influence. The lack of "functional participation" in actual school work, with the consequences this has had in the form of unforthcoming social maturity and the tendency to shift the pivot of social life to points outside the school, should by the late 1970's have led to another dispensation, where more students in both secondary and higher education will be in on the planning and decisions which bear on their studies.

The Working Community

The shift from manufacturing industry to service industry, which has been in full swing since the early 1950's, will tend to accelerate. One is no longer tied down as before to stationary jobs with relatively routine duties. In manufacturing industry the effect of continuing technical rationalization has been to substitute machinery for human muscle in more and more operations, at the same time that the production process itself increasingly comes under automatic controls with the adoption of modern electronics and data-processing methods. The blue-collar worker of old will become a skilled technician who performs a general monitorial function. He will have to know how the "machinery works" and be ready to take action if something goes wrong, because the machinery entrusted to him will be incomparably more expensive than in the past.

This service industry will have an increasing portion of its practitioners engaged in medical services and education. However, a great many people will also be working in other service sectors such as tourism and catering. Many services formerly provided by the home for itself will be supplied by outside organizations, such as food preparation, laundry, cleaning, and transportation. This will effect a change in the knowledge and skills required by the working community. The service industry will put a premium on the ability to communicate with customers orally and in writing, to deal with them smoothly and easily, and make the best of their wishes and complaints. For these purposes, it will not be enough to master the native tongue; familiarity with one or more foreign languages will become increasingly essential.

An important consequence of modern technology and greater efficiencies in manufacturing industry will be to professionalize more of the duties performed by employees. The fewer the routine and repetitive operations that are required of an employee, the more he will have need of general education and specialized occupational experience.

The speedy transformation of the economic system will increasingly make fixed commitment to any one line of vocational training a dubious proposition. So rapid is the process of change in major sectors that a person who has gone to great lengths to master the intricacies of his particular craft cannot be sure whether his skills will be marketable only a few years hence. From this, two consequences follow. First, basic skills which involve the ability to listen, speak, read, write, and count, and also the ability on his own behalf to find adequate knowledge, will take on ever greater importance. Second, it will also be important to have a command of certain fundamentals in different subject areas, that is, familiarity with the concepts, principles, and methods which constitute these subjects as disciplines, as fields of human learning.

It will be necessary to assimilate a body of general education, large enough to cover the broad unforeseen spectrum of tasks that will be confronted both in the working community and outside it. The normal course of a life career will probably have to make recurring provision for further education and in some cases for retraining in order to prepare for a completely different occupational sector. It has been observed that the specialized knowledge which an engineer learned as part of his education in the late-1950's found but moderate application in his sphere of activities ten years later. Yet insofar as he had acquired a good basic education in science and a good general orientation in technology, he could, without too much trouble, familiarize himself with the new.

By the end of the century, it should be the rule rather than the exception for a working career to be dramatically affected by a technology which translates human talent into machinery, information systems, computer programs, and "precooked" knowledge which is immediately retrievable for use. Lifelong education, at least in occupations of a more professional nature, looks as though it is becoming a normal fact of life.

The Educational System

The sweeping portrayal of a changing society I have given has been an attempt to provide a background for speculations about how the educational system will look a few decades from now.

Quantitative Growth

Two developments may be taken for granted: enrollments, particularly in higher education, will continue to expand, and more years will be devoted to full-time learning. We can feel sure of a spectacular quantitative growth in the educational system, in terms of students and the number of years they will be spending in school. Adult education (or continuing education as it is sometimes labeled) will probably expand more than youth education.

To take Sweden as an example: the period beginning with 1950 has been marked by an "enrollment explosion," which has visited its rolling impacts upon elementary, secondary, and university levels in turn. The economy's manpower needs, as well as the heightened demands for educational consumption which follow from improved living standards, will mean that nearly half the youth population will want education at the post-secondary level. The universities will probably "burst at the seams," which in turn probably will usher in two types of institution: the one mainly concerned with preparing for vocations on the basis of a first degree, and the other with the training of researchers at the doctoral and post-doctoral levels.

Economic Consequences

Given a development such as this in countries where almost all education is paid for out of public funds, and where even public subsidies are forthcoming to compensate young people for some of the income they do not earn by staying longer in school, severe strains are inevitably imposed on government finances and ultimately on national resources. All the ardent talk of rationalization and the desire to have the work of educational research and development aim at manpower economics in schools should, of course, be seen in this light. The heaviest expense of running an educational system is incurred by the teacher. Major savings stand to be gained by the more efficient deployment of this manpower. Opportunities will be opened up for more admissions to those schools which have had to limit their enrollment for financial reasons.

For some time it will presumably be realistic to expect that priority will be given to quantity, to the number of educational opportunities, more than to quality, to the average level of accomplishment among the educated. We can assume that the future school will bear institutional features that will be at great variance with tradition in many respects. The buildings which now go under the name of schools and run up a big construction bill, not to mention the rapidly increasing expense of equipping them, will surely have to be put to more effective, particularly more continuous, use in the future. Far from looking as schools have always looked, they will take on more of the guise of community centers, where children, young people, and adults will meet not only for instruction, lectures, and study groups, but also for a broad array of other cultural activities, such as performances of plays, concerts, discussions, and leisure and hobby pursuits.

The cost of education embraces not only the direct outlays, those expended on the educational plant itself, but also the indirect loss of production and income which results from opting for education instead of gainful employment. Even though the question of whether or not lost income ought to be counted as an educational cost is open to debate, it cannot be denied that education would be easier to bear in the macroeconomic short term if the young people partly were out working rather than going to school. This argument acquires added weight at a time when the numbers of young people pursuing a full-time education are growing with explosive speed. Nor can it be denied that a large slice of education is not an investment but quite simply consumption, something which in affluent countries can be regarded not only as legitimate but also self-evident.

Spreading Out the Educational Period

It is now possible to envision a different balance among basic general education, vocational training, and continuing education (retraining) than the one now struck. Tradition holds that as much education as possible ought to be squeezed into the early years of life. School should preferably be started at the earliest possible age. In the United States, a debate has been waged about what might be gained from letting three- and four-year-olds learn to read and possibly write.

One can imagine a scheme which would guarantee every citizen free education after compulsory schooling for a specified length of time. It would then be up to the individual to decide whether he wanted to use up all his "bonds" at one go or spread them out. For example, some youngsters might be "fed up" with school at the age of 16 and prefer to leave, even though their parents want them to continue. Knowing that further education is guaranteed for them, they could take jobs to gain the maturity and experience that would make a return to school more meaningful. Considerable savings could no doubt be made by putting off further schooling till long past the age of 20. Adults are admittedly much more expensive to educate per unit of time because their on-the-job inputs are more productive, but it should be reckoned that they would be able, with considerably less instruction and in a much shorter time, to assimilate knowledge and skills that often have to be pressed upon unmotivated young people, and with a lot of time wasted in the process. Adults are better able to see the relevance of what they learn, can plan better, and can work to a much greater extent on their own without supervision.

No pretensions are made here to portraying even the general outlines of a future educational system that is not solely cast in a school-type mold and does not rest on a time-honored school organization. The best that can be done is to give indications and make observations about development trends which may be strengthened or weakened at some future time. As I have already pointed out, one can envision an abandonment of the formal division between education in schools for children and young people on the one hand, and productive inputs in the economy on the other, inasmuch as education can be divided in time in a different way than has so far prevailed. A certain part of the day, or specified days in succession, may come to be spent in that institution called a school, whereas other times of the day or other full days can be given over to endeavour either in education or in productive work (indeed, the two activities may well become indistinguishable).

Future Channels of Education

What are the institutions that will be rendering contributions to tomorrow's educational system?

It stands to reason that the school in its traditional sense will continue to play the dominant role. However, the uses to which it is put will take in all ages and its manpower resources will include not only teachers as conventionally defined but also experts from various walks of life: capable exponents of different professions, officials, and politicians. Boarding schools and camp schools will appear to be likely variants. We already have in-residence education for young people with special handicaps or for those looked after in corrective schools. In the case of young people who are born in homes where they risk serious maladjustment, it will be cheaper for society to provide an in-residence schooling in place of social therapy induced by delinquency or other antisocial behavior. The other variant, camp schools, enables teachers and pupils to be together in short-term classes where educative contacts in the broadest sense can be established and strengthened.

Alongside the institutional schools, we have the new era's leading agents of cultural influence: the mass media. These will be increasingly incorporated in the actual school teaching. Before long it is likely that the average pupil at home will listen to the radio or watch television for at least as long as he watches and listens to a teacher in school.

In certain countries, such as Australia and the Soviet Union, correspondence courses have had great importance for the instruction of young people, but they are also important for adult education, as in Sweden. To the same extent that instruction by computer is introduced and methods for the marking and individualization of special exercises in this instruction are worked out, its potentials will increase even more.

In small countries, where fluency in one of the world languages is an imperative and some command of one or two others highly desirable, much of the school's time schedule goes to foreign languages. Experiments have lately been undertaken at the secondary level to locate partly such instruction in a country whose language the pupil is supposed to learn. With increasing communications in our day and age, there is every likelihood that external courses will become a common feature of the educational system, with provision made not only for languages but also for other subjects, to be studied as part of regularly allotted longer stays abroad.

In spite of the considerably greater interest taken by the business community in Europe since the early 1950's in matters relating to education and schools--in certain countries, for example, the Federal Republic of Germany, businessmen actually spearhead the drive for necessary school reforms--there is still a big, and to some extent necessary, gap between the type of education given in the classroom and that which may later become appropriate at the workplace. So as to impart to young people a broader experience of "functional participation" and stimulate their motivation by making them feel the relevance of what they are doing, it ought to be a matter of top priority to investigate all the educational (in both the material and formal senses of this term) possibilities which can lie in business-sponsored programs of in-company training. It is likely that the development set in train by the experimental work in Sweden of the early 1950's, when certain categories of young people were enabled to receive for a few weeks, through work experience, practical vocational guidance on the premises of firms (a program that was later extended to all young people), will be further accentuated. Thus more teen-agers who so desire can take their education in "sandwich" form, spending certain times in school, other times in a company.

Work Practices in the Century-end School

Perhaps the most dominant feature of the century-end school we can imagine will have to do with the change in work practices. In certain fundamental respects, the acquisition of knowledge probably will present a quite different picture.

1. The emphasis will be put on learning, not on teaching.

2. Labor-saving facilities will make their way into the school to a greater extent. These facilities will embrace both "hardware" and "software": in the former category, appliances such as projectors, tape recorders, and learning machines; in the latter, printed material such as exercise booklets, work cards, and programmed textbooks.

3. Although the main educational emphasis will have shifted from content subjects, such as history and geography, to skill subjects, such as mother tongue and mathematics, this will in no way diminish the quantum of knowledge required. Toward this end great emphasis will have been put on teaching pupils how to acquire knowledge by themselves, which in turn will demand more initiative and independent work.

4. A new organization of work has begun to make its entry with the abolition of the breakdown (for all subjects) by grades, and with provision for flexible class sizes depending on the mode of instruction used.

Modes of Instruction

What are the modes of instruction that may be assumed to hold sway in tomorrow's school? I shall confine myself here to a brief overview. To begin with, we are already heading toward a new physical organization of work which signifies that division of pupils by grades has lost in importance, that the size of the group taught is determined by the mode of instruction, and that the pupil is more likely to face several teachers rather than a single teacher or instructor in any one subject. The division of pupils by grades, largely coinciding with age levels and entailing upward movement once a year in all subjects, contravenes what has long been common knowledge in differential psychology. In the future, therefore, consideration must be given to grouping the pupils in a way that eliminates grade division and grouping by streams and tracks that freezes the individual's educational and occupational career.

Further, we have taken the first groping steps towards an organization of work where the size of a class is determined by what takes place there. If the communication is mostly of the one-way kind, 100 pupils or more can constitute the class. If it takes the form of intensive teacher-led instruction involving interaction between teacher and pupils, as well as between pupils, the group should not consist of more than 10-12 pupils. Analyses carried out in several countries show that the teacher in an average class spends at least half his time talking, demonstrating, screening films, administering or monitoring tests, or engaging in similar tasks for whose performance class size within reasonable limits is irrelevant.

Perhaps the most sweeping transformation of work practices in the school which looms ahead is the development of more or less complete individualization, upon which most of the teacher's endeavours will converge. The teacher will then be a person who diagnoses the status of every pupil, who sees to it that the pupil is confronted with appropriate subject matter and/or experiences (the latter taken to mean that all knowledge need not be verbally communicated), and who checks on individual progress. The occasions offered for such instruction must be such that will permit each pupil to learn under optimal conditions.

It will have emerged from the foregoing that the instructional ideal is total individualization. The educational researcher may be forgiven if, in more ecstatic moments, he envisions the teacher as a physician who, after having made his individual diagnosis, writes out the best prescription for a pupil and tells him to have it filled out by a pharmacy of tried-and-tested didactic alternatives. That may strike many as talking about champagne when the best that can be offered in the practical school situation is small beer. None the less, this vision ought to guide us when we cross the threshold leading to the "industrial" era that also lies ahead of the school. The ideal must be to aim at giving every pupil the advantage formerly vouchsafed to the aristocracy alone, namely to have a tutor at his side. After all, why not emulate Philip of Macedonia, who gave his son Alexander an Aristotle?

Pauline Gratz

Maintaining a Supportive Physical Environment for Man

It has currently become quite fashionable to speak and to write about air pollution, water pollution, poisons in our food, noise levels, flood control, overpopulation, the paving of the countryside, the building of jetports, and the rest of man's alterations of his environment. Little has been said, however, about the fact that the health and welfare of man, both as an individual and as a society, are rooted, not only in air, water, food, etc., but in a complex system composed of all facets of the environment including man himself, interacting with and on each other. No study of man's physical environment makes sense if it focuses on one without the others.

It is impossible to understand and deal with air pollution, for example, without considering its relationship to waste disposal, electric power generation, public transportation, human and animal health, or the chemistry of agriculture, to name just a few parts of an intricate interrelationship. Whether it is called an ecological community or an ecosystem, this interrelated complex governs the life of man and his biological and physical associations. Disease may be seen, from one point of view, therefore, as a lack of adequate adaptation by man to factors in the environment. The significant feature is that the social, physical, and biological components function as an integrated system and any interference with any part of the system will affect each of the other parts and alter the whole.

Man has made giant strides since ancient times. Many of these strides are laudatory and have contributed to the "better life." But in other aspects, man has made some monstrous mistakes. Ancient Romans complained of the sooty smoke that covered their city. Pliny, in the 1st century, described the loss of crops from climate changes due to the draining of lakes and the alteration of rivers' courses. In the past, man could leave his own waste behind and move on to some part of the planet still unspoiled. Today there is no escape. For the first time in history, the future of man is now in serious question. This fact is hard to believe, or even think about, yet it is the message which a growing number of scientists are trying almost frantically to get across to us. It is this fact which has implications for educating our young people toward the realization of the need for maintaining a viable environment.

The prime aim of this paper is to look seriously at the inter-linking threats to human existence, and to learn what we can do to fight them off. Essentially what I am concerned with is the fundamental ethic of man's survival. With this in mind, I should like to raise and then consider certain questions.

Environmental Pollution

Has man the right to poison the environment in which he thrives?

The level of oxygen in the atmosphere today is slightly over 20 percent. This is similar to the atmosphere 400 million years ago. This is probably due to the efficiency of the combined efforts of green plants and organisms, including animals, which use oxygen. The green plants provide the oxygen to the atmosphere at approximately the same rate as organisms use the oxygen available in the atmosphere. This fortunate state of circumstances is primarily due to the presence of marine microorganisms suspended near the surface of the ocean's water. It has been estimated that these organisms produce 70 percent or more of the world's oxygen. Consequently, even though there is an interruption of the oxygen-carbon dioxide cycle, known as photosynthesis, during darkness and partially during winter seasons, man has been fortunate that the circulation patterns in the atmosphere move the air about the earth in such a way that he has not yet had to be concerned that he would run out of oxygen to breathe. However, there is a possibility that today man is pushing his luck.

In photosynthesis, plants such as the marine microorganisms use carbon dioxide to build their organic compounds. Animals in turn combine the organic compounds with oxygen to obtain energy for their activities. The carbon dioxide-oxygen relationship essential to photosynthesis is thus essential to the maintenance of all life. Should the relationship be altered, that is, should the balance between the plants and animals be upset, life as it is known today would be impossible.

Just as the oxygen is primarily produced by marine microorganisms in the sea, the carbon dioxide in the atmosphere is created in large measure by the process of combustion. The carbon dioxide in the atmosphere before man's appearance on earth was probably due to the spontaneous combustion that occurred in the forests covering the earth. Later, primitive man burned forests for warmth and food and protection. As time progressed, man went on to find other uses for combustion and to find new combustible materials such as coal, oil, and natural gas which provided him with heat and power.

It was the exploration of these fossil fuels which made it possible for more people to exist on earth than ever before; but this exploration brought with it our serious problem of environmental pollution.

The oceans take carbon dioxide from the atmosphere, producing limestone. There is danger, though, in that carbon dioxide is now being added to the atmosphere far too rapidly for the oceans to absorb it completely. Just consider the huge consumers of fossil fuels: the industrial facilities, automobiles, jet airplanes, and private homes. In addition, consider the increase in the use of automobiles and jet airplanes. A ton of petroleum hydrocarbon when burned produces about 1-1/3 tons of water and about twice this amount of carbon dioxide. With the increased use of fossil fuels, the amount of carbon dioxide spewed into the atmosphere is increasing tremendously. Concomitantly, vast tracts of land are being removed from the cycle of photosynthesis. In the United States alone, a million acres of green plants are paved under each year. The loss of these plants is reducing the rate at which oxygen enters the atmosphere. In addition, consider that scientists do not even know to what extent photosynthesis is being inhibited through pollution of ocean and fresh waters.

For this reason many science educators believe that the carbon dioxide-oxygen balance may be in danger. Should a point be reached at which the rate of combustion exceeds the rate of photosynthesis, the atmosphere will begin to run out of oxygen. If this occurs gradually, the effect would be approximately the same as moving to high altitudes, such as in the Andes mountains. Some believe this might help to alleviate the population crisis by raising death rates; others hold out the possibility that atmospheric depletion of oxygen might occur suddenly rather than gradually.

It is quite possible to cut down on some of the carbon dioxide pollution by installing control systems in automobiles. Yet many individuals doubt whether this is truly a practical solution to the pollution problem without inordinate costs to the automobile user. If this opinion is to be followed to its logical conclusion then, as one scientist has ironically observed, there is no solution to the problem except to allow pollution to rise to such a level that one-half of the car operators succumb to the effects of their free use of the highways. Then, with the number of automobiles reduced to the presmog level, air pollution will once again become insignificant until, of course, the car operators reproduce and the population increases again. Obviously, this is madness, but it may come to this.

It is not difficult to envision what might occur if any one of the numerous steps in the nitrogen cycle were to be disturbed. The atmospheric nitrogen might disappear. It might be replaced by ammonia which, unused in the atmosphere, would become poisonous. Or plants could not make proteins because bacteria would no longer be available to use the gas in the atmosphere. In any case, it might mean disaster for the earth.

There is some evidence that eventually man will run out of fossil fuels and consequently is now turning to atomic energy as a source of power. With this comes the probability of a different breed of environmental pollution. Atomic reactors are already in use for the production of electricity. Fear arises, however, over what is known of the present reactors and those proposed for the future.

The uranium fuel used in current reactors has to be reprocessed periodically in order to ensure a continuous chain reaction. The reprocessing yields strontium^{90} and cesium^{137} which have long half-lives and are biologically hazardous isotopes. They need to be stored where they cannot contaminate the environment for at least 1,000 years. It is known, however, that a large number of the storage tanks employed for this purpose are already leaking. This problem can be resolved because these two products can be chemically trapped and restored. Another product called krypton^{85} cannot be trapped and consequently is sent into the earth's atmosphere to add to the radiation exposure of the earth. At the present time scientists and engineers have no practicable way to prevent this.

To soothe these concerns, some scientists suggest that the use of "clean" fusion reactions be used in the place of the "dirty" fission reactors which are polluting the environment. They say that in this way strontium, cesium, and krypton isotopes would not be produced; but no one knows how these generators are to be built. Even if engineers were successful in building a fusion generator, new contaminants would be produced. One of these is tritium or hydrogen^{3} which would become a constituent of water; and that water, with its long-lived radioactivity, would contaminate the environment.

So, once again, where can the solution to the problem be found? If we want to avoid ground water contamination it might be better to use fission (that is, "dirty") devices rather than fusion (that is, "clean") devices. But fission devices if used irresponsibly could cause a tremendous increase in the permissible exposure level of radioactive dosage. Perhaps the solution lies in an altered educational system. Prevention has always been cheaper than cure, although as people we are loath to face the obvious.

Prediction of future problems is important in order to create effective programs of prevention. The escalation in present problem intensities is far too expensive in terms of life.

Man is dumping vast quantities of pollutants into the oceans. These include pesticides, radioisotopes, detergents, and other biologically active materials. No more than a fraction of these substances have been tested for toxicity to the marine microorganisms that produce most of the earth's oxygen, or to the bacteria and microorganisms involved in the nitrogen cycle.

Man has developed ingenious products and devices to bring about short-range benefits. He is constantly devising grandiose schemes to achieve immediate ends. Man's influence on his earth is now so dominant that he must begin to consider what his products and schemes will do to the geochemical cycles instead of trusting to luck that none of his machinations will upset the balance of life.

So many of the problems besetting man in supporting his environment can be summed up thus far by the simple phrase, "We don't know." Does this mean that he should do nothing? The magnitude of this crisis is visible but until only recently went unrecognized by large majorities of people. Its gravity is felt by many but rarely understood except by a few. People seem not to recognize or understand what is in plain sight, pretending the problem is not as serious as is often implied, hoping it will go away and leave them alone. It is precisely because individuals have refused to comprehend what they behold that the stress is starting to impinge upon their daily lives ever more frequently and ever more insistently. A malignancy always swells and multiplies in the absence of therapeutic measures.

The paradox of the situation lies in the fact that man is fully capable of rooting out the underlying causes of pollution. The human, technological, and financial resources are at hand. Man does possess the knowledge and skill to use these resources. Man hesitates, equivocates, argues, and continues the very practices that have resulted in his environmental problems. Does the tragedy lie in man's unwillingness to act?

World Food Crisis

Can we prevent widespread famine?

Man's interference with these delicately balanced cycles is not the entire picture. Man also faces a food crisis. The problem of feeding the people of the world is as old as civilization itself. Scientists have been predicting the crisis between population growth and food supply for the past 200 years. The only new feature of the problem is its dimensions and the fact that there is a disproportionality in the economic development, population density, and food supply throughout the world. The United States is in a much more fortunate position in comparison with the less developed countries; but starvation and malnutrition are a way of life for a large number of people who live even in this affluent country, although some legislators are not willing to acknowledge this. There is no doubt, however, that people are more knowledgeable and have greater interest today in solutions to problems of poverty, hunger, and malnutrition of the less fortunate than ever before. Yet whether the concern is one of genuine interest in a better life for all mankind or whether it is based on fear is not known. What is known is that unless effective steps are taken to improve conditions, general chaos may envelop the world.

Optimists dismiss the prediction of widespread famine, but more cautious individuals have looked at the evidence which prompted Paddock and Paddock to write a book entitled, Famine 1975! America's Decision: Who Will Survive?[1] They have also looked at the three-volume report issued by the President's Science Advisory Committee called "The World Food Problem," published in 1966. This 1200-page report in essence stated that the requirements for solution of the world food crisis would involve astute management. The report also made three major recommendations:

1. Develop inexpensive high quality synthetic dietary supplements.
2. Improve the quality and nutritional content of food crops.
3. Apply all available resources and technology to increasing food production.

In seeking the food that is required to meet present deficiencies and provide for the population growth of the future, consideration must be given to all known sources. This includes the food from the sea, bacteria, and petroleum, as well as synthetic and traditional sources.

The Science Advisory Committee emphasized the point that what we need to do is to improve the agricultural production of the developing countries. One way to do this is to send them seeds, stock, and fertilizers; then they can raise more food to feed their exploding population and all will be well.

Unfortunately, many strains of plant and animal foods which grow well in Iowa, New York State, Texas, California, and other parts of the United States may fail to grow in other climates and other soils or may grow poorly. In other words, it is necessary to develop the appropriate strains and agricultural technology in the field where the grain is to grow and in the area where the animal is to be raised.

In the best of our training institutions it takes a long time to train the personnel needed for the job. How much longer will it take for those countries which do not have the personnel, equipment, and financial resources available? Time is the issue, because no matter how many hens sit on an egg it still takes 21 days to hatch it. The same principle will apply to other plant and animal breeding.

It has also been suggested that we harvest the sea. Again, it may not be as practical a solution as it seems on the surface. Another publication in 1966 by the President's Science Advisory Committee entitled "The Effective Use of the Sea" indicated how little we know of the sea. We understand little of the turbulence of the sea which cyclicly controls the natural food chains. We have only begun to develop the technology to enable us to study the microclimate of the seas. Again, how long will it take to train oceanographers?

Efforts have begun to use bacteria, fungi, or yeasts to convert petroleum directly into food for man. This is wonderful on the surface because it appears more efficient than feeding petroleum to a refinery to make gasoline and then feeding gasoline to tractors and other machines which will eventually deliver the food. It is an unhappy fact, though, that the metabolism of bacteria, fungi, and yeasts does not generate oxygen as do green plants.

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[1] William Paddock and Paul Paddock. Famine 1975! America's Decision: Who Will Survive? Boston: Little, Brown and Company, 1967.

One last aspect--the world's food supply. A few years ago the United States was troubled with crop surpluses. You do not hear of these surpluses now because they no longer exist. We used to be concerned with the cost of storing surplus crops. The government now finds that we could ship one-fourth of each year's production to India alone and that would not be enough.

The Population Explosion

Is it ethical for anyone to have more than two children?

What is most disturbing is that man does not recognize that no matter what he does, it is impossible to provide enough food for a world population that is growing at an unparalleled rate of two percent per year. Translated into people, this means that 132 individuals are added to the present population per minute. This current rate of growth may not sound unusual, but it has been shown that if this rate had existed from the time of Christ until the present time, the increase would have resulted in over 20 million individuals in place of each person now alive or 100 persons for each square foot. At our present rate of two percent per year, within two centuries, there would be over 150 billion people on earth.

Paddock and Paddock[2] in their book concentrate on the exploding population and identify four principles of population dynamics which must be dealt with:

1. The Death Rate

The population explosion, to most people, has been due primarily to an increased birthrate, that is, the number of births per 1,000 people. Another explanation is that the "explosion" is due primarily to falling death rates. The more people saved from death, the more people there are to have babies. In many developing countries the death rate has been cut in half since World War II.

2. The Younger Generation

Nearly one-half of all the people in the developing countries are under the age of 15. Young people marry and have babies. For example, suppose there are by 1975 60 percent more marriages among young people. Sixty percent more marriages formed in 1975 may mean 60 percent more babies in 1976. Again, it is not the birthrate, that is, births per 1,000 population, which accounts for the explosion; rather, it is that more people are in the childbearing ages.

3. The Birthrate

The physiological maximum for the birthrate for a long time has been thought to be 45 per thousand. This is calculated on the extrapolation that

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[2] Ibid.

500 of the 1,000 will be women. Of that number, 410 are either too young, too old, or infertile. Of the 90 remaining, half might be pregnant or not able to conceive because of just having had a child. Population dynamic 2, however, indicates a shift in the physiological maximum as exhibited by Costa Rica, which in 1963 showed a birthrate of 50.2 per 1,000.

4. Man's Reproductive System

The million-year reproduction and evolution of man have produced a single-mindedness that science and technology have not been able to contain quickly by birth control methods. The control of a population by birth control requires a literate population, a large medical profession, and a safe method of practice. The illiteracy rate in Japan is one percent. In contrast, Africa's is 84 percent and Latin America's is 40 percent. If we look at physician ratio, Japan's is 900:1, Mexico's 1800:1, Pakistan's is 11,000:1, and Ethiopia's is 96,000:1. The methods of birth control are also problematical.

The IUD (Intrauterine Device) has been loudly proclaimed as the best answer. Who will insert it? It is estimated that one well-trained team can insert one IUD every two minutes and 24 seconds. This sounds wonderful, but let me point out that in 1968 more than 850,000 women in India alone reached childbearing age. To insert IUD's nonstop in only that number of women would require four plus years if my arithmetic is correct.

The Pill also has its problems. It requires intelligence, motivation, and daily attention. In addition, when a woman stops the Pill, or forgets to take it regularly, her fertility is increased. Furthermore, since the Pill has some undesirable side effects, it cannot be recommended for all women.

Finally, the concept of birth control means different things to different people. The decision to use birth control is made by a man and a woman based upon personal wishes and cultural norms as perceived by the procreating couple. For example, if some couples in the United States are asked what they consider an ideal family size, the reply often is as many as they can afford. Some can afford two, but others can afford ten. It takes very little arithmetic to see what this means in terms of population growth.

When we speak of the population explosion, we usually imply some other country's problem. The population of the United States has increased from 130 million in 1930 to over 200 million in 1967. This is an increase of over 70 million in less than 37 years. It is this enormous growth that has polluted our air and water, that is consuming our material resources faster than they can be replaced, and that has placed impossible pressures on our living conditions.

It has been pointed out that we are on the logarithmic phase of a typical growth curve after a long lag period. In nature no animal, plant, or bacterial population has ever maintained a logarithmic phase of growth for very long. The major factors that slow this rate of growth are exhaustion of food supply, accumulation of toxic products, decimation through disease, or the effects of some outside lethal agent which kills a high proportion of the population. Your imagination can ponder which of these factors might apply to the human population. Thus, there appears to be no way for us to survive unless man begins to identify ways and means of solving the growth of world population and increasing world food supply.

At an ASCD meeting just a year ago, I made a similar speech and pointed out that at that time only about one percent of the population were even aware of environmental problems. Today the environment is everybody's bag. I share the concerns of many when I say that I hope this alarm is just not another passing fad.

Congressmen who most likely a year ago still thought of ecology as something to do with learning the names of trees are offering legislation. Some of the bills do not do very much, but at least they do reveal an awareness of a problem to which hitherto legislators and national leaders have given slight attention.

Plainly, industry is out to convince the country that it, too, is concerned. Many firms are publishing brochures with accounts of what they are doing to control pollution, while others are establishing "environmental control departments" or "ecology councils."

Universities across a nation may observe an Earth Day by holding symposia and teach-ins on the environment. However, restoration of the environment will not occur in a crescendo of concern on one day. It can only happen bit by bit, reversing the gradual process of accumulation by which the present state of decay occurred.

I am firmly convinced that one goal of education today is to discover why man has done so badly in his efforts to manage his affairs in the 20th century. The study of the relationship between man and his environment, both natural and technological, will help man to understand the consequences of his actions: how sulfur-laden fuel oil burned in England produces an acid rain that damages the forests of Scandinavia; how DDT used by a tobacco farmer in North Carolina turns up in the fat of an Eskimo living in Alaska; why a farm subsidy which helps one group of individuals can force another group of individuals to riot. A student who comprehends man's relationship to the environment will be equipped to do something about the environmental problems that beset the world. If we can reach enough students, it is quite possible that man and his environment may survive against all the odds a while longer.

Denis Lawton

Maintaining a Supportive Physical Environment for Man: How the Schools May Help

At first sight it might seem that the topic under discussion is a fairly simple descriptive matter. However, the more I think of it the more it seems to me that what we really must do is to reconsider the very basic question "What are schools for?"

In discussions of a theoretical kind when we are asked to justify the existence of schools, we tend to put up fairly sophisticated arguments embracing vocational requirements of society, the social needs of the individual and society, and finally aesthetic arguments. But when countries institute compulsory education, the motive which is most apparent is either the vocational requirement of society (as was the case in England in the 19th century) or some kind of social motive (as was probably the case in the U.S.A. when using schools to Americanize the children of immigrants).

It was not until schools had reached a fairly advanced state that the third element--the aesthetic element--began to appear as part of the curriculum in any meaningful way, despite the fact that many early educational theorists (including Spencer in the United Kingdom) had put this forward as one theoretical purpose of instituting schools for all.

Today I would not hesitate to put forward the aesthetic purpose, broadly considered, as one of the most important functions of the school, on the grounds that the vocational and social purposes of the school may well be catered for outside but that the aesthetic aspects of education are much less likely to be achieved without the school. In saying this, I am reminded of a suggestion a few years ago that the role of the teacher must change from the teacher missionary concept of the 19th century to the crusader for cultural and academic excellence in the second half of the 20th century.

I will try to resist the temptation--which is always a very real one for the curriculum theorist--of dealing with very general issues of aims; instead, I will try on this occasion to confine myself to the task of answering the very specific question posed, "How can a school help in maintaining a worthwhile physical environment?"

I think we might discuss this question of the schools' contribution to a social problem at three levels:

1. Physical and architectural (what schools could be)

2. Curricular (in a narrow sense meaning the content of teaching programs--what schools could say)

3. Organizational and inspirational (in the sense of what the schools could get people to do).

Physical and architectural. The first of these levels of influence is perhaps the most obvious, but in some ways the most difficult, involving as it does matters of aesthetic taste and judgment. Clearly a school can help to maintain a supportive physical environment by being an example of one. We probably all agree that it is desirable for a school to be a place which is not only useful, but also beautiful. But I think we might go a long way toward general agreement. For example, if you had any doubts about my earlier statement regarding the relative priorities of education in the 19th century, we might have a look at a typical Victorian elementary school and contrast it with a more modern equivalent. I think we might all agree that the aesthetic qualities of the modern school have been given more attention than the barrack-like buildings thought appropriate during the 19th century.

Similarly, Thomas Arnold, who was headmaster of the famous Rugby School, said that the school (meaning of course the independent boarding school for upper middle class pupils) should be a model community--an example of what the outside world should be like. But I do not think he was very much worried about what his school looked like; he was thinking of the moral structure of the school rather than its architectural features. His main concern was what kind of social structure within the model community would produce Christian gentlemen.

I wonder if it is too fanciful to question whether the lack of aesthetic awareness in the education of these 19th century gentlemen had anything to do with the fact that so many of them were responsible for the destruction of countryside in the name of industrial expansion, the ruining of towns by creating slums, and so on? In any case, we have come a long way from the Victorian conception of appropriate school architecture, and certainly many architects entrusted with the task of building schools in post-war England, for example, were consciously trying to set a standard of design for a whole community.

Yet even this is only half the story. Having or not having a beautiful building does not prevent members of a school from taking further action. Many well-designed schools are ruined by the use made of them; many schools which are externally ugly, or just aesthetically neutral, are made into something very worthwhile by the teachers and students. I have seen some magnificent schools ruined by litter, vandalism, and tasteless internal decoration. (I shudder to think how many schools I have visited where many boring hours were spent making Christmas decorations which were in no way superior to the tasteless junk available in the local supermarket.)

On the other hand, I have, for example, visited primary schools in Oxfordshire, England, which are still using temporary prefabricated buildings of no architectural merit whatsoever, but where the children had made and printed their own excellent curtains, where the rooms were decorated with examples of the children's paintings, sculpture, and pottery all of undoubted aesthetic merit, so that the memory one retains of such schools is that they were, despite their unpromising architecture, places of beauty where taste and discrimination were being fostered. I sometimes think that most schools would do well to remember the advice, "Have nothing in your house unless you think it is beautiful or know that it is useful." If this advice were followed and if we concentrated more on the development of aesthetic awareness as part of normal education, our schools would not only be neat, tidy places, they could also become living examples of beauty for the rest of society. But this has all sorts of implications regarding priorities in education, not least in the education of teachers.

In addition to being effective in this respect, schools would also have to become much more a part of the community than they are at present in most parts of the world. In England we have had a number of experiments of community schools of various kinds--most of them with very encouraging results. Yet, in many places, schools still tend to be forbidden, foreign territory to most adults. If we want schools to be less limited in their influence, they will have to be opened up to the community a great deal more than they are at present. Perhaps we need to think not only of the teacher as the crusader for excellence in an age of mediocrity, but also of the school as an aesthetic focal point for the whole community for art, sculpture, films, drama, and music.

Curricular. Let us now pass to another potential influence of the school about which teachers usually feel much more comfortable--those kinds of influence which can be brought about by the content of the curriculum.

Our main objective, presumably, is to promote the awareness of certain problems and then to try to encourage the kind of attitude in pupils which will make it possible for problems to be solved. Here the emphasis will shift from the school itself to the environment outside the school. I would want to subdivide this discussion of the content of the curriculum in the following way:

1. General studies of the environment

2. Questions of pollution and conservation

3. Population.

General studies of the environment. The first aim would be to cultivate an increased perception of the pupils' own local environment and an increased understanding of it. Naturally this is only a beginning: I am very much of the opinion that today, in "environmental studies," we must think of a child's environment as being the whole world, available as it is on television and film. But this does not mean that we should ignore the local environment. For some kinds of study this may be the obvious place to begin. At a very early age children can (and often do) develop an increased consciousness of what is beautiful or ugly, useful or useless, improving or deteriorating in their own locality.

Questions of pollution and conservation. From this kind of local study the school must try to develop in the children such concepts as pollution and conservation. I am not suggesting this as a new subject for the curriculum, but rather as a series of urgent issues which might be dealt with by existing subjects, probably in an integrated way, as I shall illustrate later on. It is not without significance that the year 1970 has been designated European Conservation Year. And I am quite sure the problems are regarded as equally urgent, if not more so, in the U.S.A. and other parts of the world.

It has taken a long time, but at least the "experts" in various fields have realized not only the importance of this topic, but also the desperate need for immediate action. Unfortunately, there is usually a considerable time lag between the formulation of a problem by experts and its acceptance into the consciousness of the average citizen. In this case, we simply cannot afford the luxury of a long time lag.

In a small country like Britain, for example, we are losing land by the process of industrial dereliction at the alarming rate of ten acres each day. Even where the land is not being lost it is being poisoned. In Lincolnshire, in 1961, thousands of birds were found to have died, poisoned by seed dressed with an organochlorine pesticide; this caused an outburst of public concern, but no one really knows the exact amount of danger to human beings. In addition, there are many other toxic substances let loose on the land: mercury compounds for example. Apparently it would cost only about three million dollars a year to replace completely such toxic substances in British agriculture.

Rather more expensive would be the process of clearing our waterways of serious pollution. It is estimated that in a small country like Britain, over 1,000 miles of rivers are grossly polluted and that it would cost about 1.5 million dollars to clean up the rivers from pollution by sewage alone. Apart from the loss of natural amenities in the countryside, we simply do not know the extent of potential danger of nitrate pollution to human beings. We do know that even low concentrations of nitrate can be harmful to very young children. The safe limit set by the World Health Organization is ten milligrams per litre.

If we look at pollution of the sea, there are many obvious problems. Oil pollution immediately springs to mind, not only the ruining of beaches but the destruction of various kinds of wildlife. In addition, scientists are becoming increasingly worried by the existence of radioactive materials in the sea. All of these problems are fairly easy to solve from a scientific point of view.

Smog in London in 1952 was reckoned to be directly responsible for the death of 4,000 people. Partly as a result of this high death rate and at least 700 years of the inhabitants' complaints of London's polluted air, the Clean Air legislation eventually was passed. It is estimated that as a result of this legislation the amount of smoke from chimneys in London air has been reduced by about 75 percent. In 1962 there was another bad smog, and in all other respects the weather conditions were the same as 1952 except for the amount of smoke in the air. But in 1962 only about 700 people died compared with the 4,000 deaths in 1952. Unfortunately, despite this very clear-cut example, many other Local Authorities in England have still failed to take measures to curtail the amount of smoke in the air. Apart from smoke, of course, there are other hazards in the air, such as carbon monoxide, sulphur dioxide, fluoride, and lead. All of these are known to be dangerous and could be controlled.

These examples of pollution are, of course, only a few of the most obvious dangers to health or environment and every one of them is capable of being understood by the average high school pupil--if they were included in the curriculum. Once again it is important to emphasize involvement in the problem: we all suffer from pollution and we all cause pollution. For example, the average person produces enough sewage every day to remove the oxygen from about 2,000 gallons of water. We all need roads and homes, and it takes about 15,000 gallons of water to produce a ton of cement, or 65,000 gallons to produce a ton of steel. This is not only a problem for various categories of other people (industrialists, politicians, etc.); it is everyone's problem. I mentioned an "integrated" approach to these questions because they are essentially meeting points of science and social studies and other subjects: how science can improve quality of life or at least prevent its deterioration.

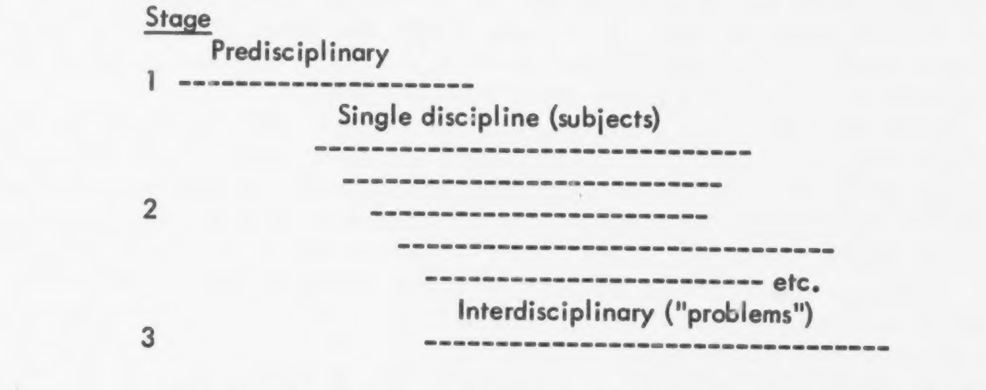
Population. If the rapid rate of population growth is not recognized as a problem, and solved, then no kind of worthwhile physical environment will be even a possibility for our grandchildren. This is of course a controversial issue, but I think we have gone beyond the stage where we shirk the discussion of controversial issues in our schools. Naturally our schools must not make up children's minds for them on value issues such as these, but it is clearly the duty of schools to provide students with the necessary knowledge and information which will enable them to make up their own minds on controversial value issues in a rational way.

Most experts on population, food, and resources would agree that this is an urgent problem. The crisis is already with us. If we consider man as the only animal with a high degree of control over his own environment, we immediately see that all the control has not been exerted in a thoughtful way. He is rapidly destroying his own environment, and the more people there are to join in the process of destruction the more difficult it becomes to conserve man's heritage.

What are our schools doing about this? Very little indeed. What is needed is not only knowledge of methods of fertility control; it is also necessary for pupils to have a much more complete understanding of human reproduction, the demographic facts and principles about population trends, the facts and principles about nutrition, the facts and principles about food production, and above all a change of attitude toward the problem--it is not only a problem for other people; it is a problem for me.

How then are schools to incorporate such topics as environment, pollution, conservation, and population into the curriculum? We are always told that the curriculum is already overcrowded; so on what basis can we suggest to schools that they should deal with the problems quoted above? I should say immediately that I would not suggest that additional subjects should be added to the timetable. What I would want to suggest is on the one hand simpler, but on the other hand perhaps more far-reaching than that.

I would suggest, as a beginning, that we consider the school life of the average pupil. It might be helpful to think of three (overlapping) stages:


Stage
Predisciplinary
1
Single discipline (subjects)
2
etc.
Interdisciplinary ("problems")
3
Age
0 2 4 6 8 10 11 12 .... death

I have mentioned one kind of predisciplinary activity, environmental studies of a very general kind enabling a child to become familiar with aspects of his own environment. This is not done with any specific subject in mind but to increase a child's range of awareness across a whole number of experiences which will later feed into a number of different "subjects."

At the second stage the subject matter I have already mentioned could well be incorporated into existing subject syllabuses. For example, the principles of science could be conveyed to pupils just as effectively by examining the physics and chemistry involved in pollution problems. Similarly, social studies syllabuses might include many of the other topics, or at least include some of the concepts necessary for their later understanding.

But it is probably at stage 3 that the most useful work would be done. It is no coincidence that it is this aspect of the curriculum which is most neglected in schools today. Children learn subjects, more or less effectively, but they are less well educated in acquiring the ability to apply this subject-based kind of knowledge to a wide variety of problems, problems which inevitably involve more than one subject. In this respect Jerome Bruner, on his visit to the United Kingdom in January 1970, caused some stir by suggesting that it might be a good idea if the traditional curriculum were pursued Mondays, Wednesdays, and Fridays, leaving Tuesdays and Thursdays for experimental curriculum which would include discussions of social and political issues--in my terms the interdisciplinary problem-solving kind of activities. Clearly, it is at this stage that pollution and population questions could be seen and discussed as problems, but problems which are capable of solution.

At this interdisciplinary stage it would be possible to see, for example, the question of a river polluted by sewage, not simply as a difficulty about the depositing of toxic substances and the effects on the biological mechanisms of man and other animals. At this stage it would be appropriate to introduce economic concepts of supply and demand, taxation, and the simple or complex application of cost benefit analysis. Part of the cost benefit analysis might be the aesthetic cost and aesthetic benefits, together with moral issues involved. Finally, an interdisciplinary approach to problem solving would show the relevance of political science. We know the answer to nearly all conservation problems if they are regarded as scientific or technological problems; all the worst examples of pollution would be eliminated if the money were provided.

Organizational. Ultimately pollution and conservation are not technological problems, they are political problems, and in a democracy all political problems are ultimately educational problems. The sooner the teachers get to work on this the better. That would seem to bring us naturally to the final way in which I suggested schools can help to maintain a supportive physical environment, by bringing about not only thought but action.

I am not one of those people who think that teachers and schools can solve, unaided, all the world's problems, but I am increasingly persuaded that without the involvement of schools, teachers, and pupils, some problems will not be solved. This section of the paper is, therefore, concerned with how schools can organize and inspire social action. Here again it might be helpful to see this at two levels, interested action and disinterested action.

Interested action is the kind of activity brought about by the knowledge that unless we do something we will suffer in some way--be poisoned by sewage or petrol fumes, be deafened by airplane noise, have our countryside ruined by bad planning. Our objective here is to make children aware of their own environmental problems, instill the will to do something about them, and aid in the knowledge needed to go about this successfully.

On the other hand, we would presumably want children and adults to take some action in which they are not personally or even remotely involved. Examples of this might be the annihilation of a remote Indian tribe in Brazil; or the pollution of the sea millions of miles away; or the destruction of wildlife in Africa. In some respects, we are attempting to appeal to something more than mere self-preservation or enlightened self-interest; we are asking pupils to concern themselves with a problem and to try to do something about it because it is wrong. The readiness with which young people identify themselves with the poor and oppressed in other countries, and their willingness not only to talk about problems but to make financial or other contributions, make nonsense of the talk of the selfish younger generation. Children and teen-agers are interested in their wider environment. But the teacher's job is to guide their idealism and to help them to match their enthusiasm with adequate knowledge and judgment.

Just in case I am criticized for being too abstract or idealistic, let me now conclude by describing a couple of pieces of work which were carried out in schools in England. I should say perhaps that in England, in my opinion, the most neglected area of the curriculum is social studies. In 1968 I was commissioned by the Schools Council to direct a project which would look at the kind of social studies work already being done by pupils between the ages of 8 and 13. In one school, almost by chance it seems, a fascinating piece of work was brought to our attention. It nearly escaped our scrutiny completely, having as it did the rather unpromising title of "Litter."

This project developed from an unlikely situation. One of the teachers complained to three girls, whose job it was to sell crisps and sweets at break time, that there was far too much litter around the school. They were able to show that the make of the crisp bags that had caused the complaint was not the make they sold, and the matter should have rested there. However, they decided to take things further and carried out a full-scale project involving collection, weighing, and classification of the litter.

Surprised by the amount of litter, they launched what turned out to be a social experiment to reduce it. This experiment was basically a matter of taking six litter counts, with the three pupils altering the conditions likely to affect the amount of litter.

First count. A straightforward count of the number of pieces of litter; the playground was divided into "areas near each classroom" and the litter classified in these areas, and represented on a histogram. This provided the baseline count of "normal" litter in the school.

Second count. The teaching staff was asked to ignore all litter for a few days and then a further count was taken. The resulting histogram represented a steep increase in litter in all classroom areas.

Third count. A campaign of exhortation by the staff was launched. In morning assembly and in individual form rooms, all children were asked to make a positive attempt to reduce the amount of litter in the school. Then the count showed a dramatic reduction, and the litter fell below that recorded at the first count.

Fourth count. The three girls produced posters, displayed them around the school, and then took a fourth count. The histograms revealed a further drop in the junior classroom areas, but not in the infant areas. They concluded that the poster campaign had not influenced the infants either because many of them could not read the posters, or because they had displayed the posters too high up on the school walls or notice boards for them to be noticed by the infants.

Fifth count. The girls then angled their propaganda at the infants. They made special litter bins for the infants--the bins lit up when the rubbish was put in them; they also made funny faces to go over the tops of ordinary litter bins. They created posters whose message was mainly visual and displayed them in the infant areas. On the fifth count they were able to show a reduction in litter in the infant areas also.

Sixth count. Before their final measurement, the three pupils engaged upon a variety of activities designed to reduce even further overall litter in the school. They carried out a survey of their classmates' opinions on the causes of litter. They created an imaginary "Litter Chronicle" as a further part of their propaganda. Finally, they invited a spokesman from the Local Authority to talk to the school about the general problem of litter in society. The count taken after these activities showed the litter in the school was now reduced to negligible proportions. And the girls produced a graph to represent the litter counts on all six occasions, showing the rise to a peak on the second count and the steep decline through the subsequent counts.

It was near the end of the term; so the pupils were unable to measure the long-term effect of their campaign, though they were aware of the possibility that the litter might start up again as the effects of the propaganda wore off.

Another project (this time, perhaps significantly, a secondary school project) was of the disinterested kind. As part of their social studies course a group of 14-year-old girls went to visit and to work for half a day each week at a Local Authority's Old People's Home. It was part of a course designed to help the girls find out, in a practical way, the relevance of the Welfare State to their own lives. They discussed beforehand what they would do, prepared questionnaires, and so on. But by the end of their stay at the Old People's Home, all their plans were forgotten, driven into insignificance by a series of "discoveries" they had made. They found that old people in this particular home were really being treated not as individual human beings but as things, rather troublesome things. They were horrified to discover that the staff of the institution, for example, valued tidiness more than privacy. The staff regularly searched the bedside lockers for anything which would make the place look less well-scrubbed for Matron's tour of inspection. Letters, articles of clothing, etc., were taken away from people and sometimes destroyed.

The girls, who were what are sometimes referred to in England as "nonacademic," were not satisfied simply to have acquired this kind of knowledge. They wanted to do something about it and they did. They wrote to the appropriate Committee (incidentally acquiring a great deal of understanding of the machinery of Local Government); the Committee sensibly paid the students the compliment of treating them as mature, responsible adults, and eventually set up an inquiry. Not only were there certain physical improvements made to the old people's environment, such as better physical accommodations, but also some staff changes took place which transformed that particular institution from a 19th century nightmare to an environment which old people could really enjoy.

Summary

How can a school help?

By being a beautiful environment inside and outside, not only for pupils but also for the whole community

By providing within the curriculum ways of understanding the environment and ways of solving some of the problems

By stimulating not only awareness of problems but the desire to solve them.

Education is no longer simply concerned with earning a living or being a "good citizen"; it is now much more concerned with quality of life--one's own and that of other people. The story of curriculum development has been largely the account of a struggle to keep the curriculum up-to-date and relevant. In the 19th and 20th centuries the struggle was to convince those concerned that science was an important element of the curriculum. In the mid-20th century the struggle was to introduce the social sciences as a worthwhile and relevant body of knowledge.

It looks as though in the late 20th century the struggle will be to introduce the study of ecology into the curriculum--to encourage young people to look at the problem of man and his interaction with the environment in a way which combines scientific evidence with social and aesthetic principles.

D. K. Wheeler

Maintaining a Supportive Social Environment for Man

Man can live in most environments. If he lives in an environment, it supports him, in the sense that he can exist. I take it that supportive here means that the environment is sufficiently nonrestrictive, challenging, yet safe to produce a particular kind of man. The characteristics I have in mind are derived from those enumerated by Marie Jahoda.

1. Active adjustment or attempts at mastery of his environment. These must be distinguished from maladjustment and from indiscriminate passive acceptance of environmental conditions.

2. Unity of his personality, the maintenance of a stable internal integration which remains intact, notwithstanding the flexibility of behaviour he derives from active adjustment.

3. Ability to perceive correctly the world and himself.[1]

A useful conceptual model for the psychologist might consider environmental factors as creating stresses for the individual. Stresses are influences (or forces) arising either from the external environment or from within the self, which interfere with basic or derived needs, or disturb or threaten to disturb the stable equilibrium (or steady state). Strain is reaction to stress and results in changes in the personality organization of the individual. A similar model can be used in sociology if we think of stresses and resultant strain as producing changes in social structure or organization. The environmental factors may be considered as either eugenic or pathogenic. Unfortunately, we can usually deal with eugenic factors only in general terms. The absence of a pathogenic factor does not mean that a positive factor is present. There are considerable gaps in our knowledge, and we know more about pathogenic factors than eugenic ones. But pathology is sometimes the pathway to prediction and control, so that in what follows there will be mention of things we should eliminate from the environment. There will, too, be educated guesses as well as logical inferences from the evidence.

The conditions under which the social environment is a supportive one are easy enough to state in general terms, though one runs the risk of uttering platitudes by stating them. One essential is world peace. The drift toward war has become a national habit, with leaders exhibiting their virtuosity in "brinkmanship," yet the conditions which maintain this drift continue. Among leaders there are always some who are excessively concerned with prestige, possessions, and power, while among the lower status groups in most communities there are a sufficient number who suffer from anomie, suspicion, and authoritarian characteristics and who seek strict leaders to control their unmanageable impulses. Good leadership may channel these into profitable enterprises, but there is always a danger that aggression and hostility will triumph.

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[1] Marie Jahoda. "Toward a Social Psychology of Mental Health." Problems of Infancy and Childhood. Transactions of Fourth Conference, Supplement II. New York: Josiah Macy, Jr. Foundation, 1950.

Riesman pointed out 20 years ago that inability to accept the idea of an economy of abundance forced on the United States the alternative of a war economy. Such a choice reinforces the idea that war is inevitable, that the enemy plans to attack, that discussion is only another delaying action. Nobody wants war. Yet it seems probable that all people "harbour enough anxiety, hostility, suspicion, and loneliness to make the concreteness, the grand simplicity, the expressiveness, and even the 'togetherness' of war sound attractive."[2]

One possible solution is the cultivation of open-ended loyalties, which entail satisfactory experience in primary groups, reward for constructive performance, and offer a wide variety of acceptable social roles for all sorts of people. They may be generalized from smaller to larger groups, so that man's ultimate loyalty is not to his neighbour or to his nation, but to his fellow man. His major concern must be the human condition. Nationalism may widen loyalties and extend civic identity, it may be the major agent of modernization and economic development; but at the same time it poses a threat to world stability by promoting ethnocentrism and authoritarian characteristics. Nationalism is something that nations must learn to outgrow.

I see five conditions as essential to the security of man:

1. The personal worth and dignity of every individual are respected.

2. Every individual has equal opportunities with others to develop himself and to contribute to the development of others, including the right to work and to be adequately recompensed.

3. Government is responsible, representative, and rests upon the freely-given consent of the governed.

4. Heterogeneity is recognized as a natural and desirable attribute of humanity. Differences between individuals are social resources to be respected, encouraged, and developed.

5. Everyone is free to think, speak, read, write, and worship according to his conscience, subject only to the right of others to do the same.

All these statements imply the value of decisions arrived at by rational processes, by discussion, by understanding the point of view of others rather than by the imposition of the will of a dominant group. More detailed analysis shows the need for concern with the values and understandings, the skills and methods, and the kinds of personalities that support this point of view.

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[2] Thomas S. Langner and Stanley T. Michael. Life Stress and Mental Health. The Midtown Manhattan Study, Volume II. New York: The Free Press of Glencoe, Inc., 1963. p. 378.

Socioeconomic Discrimination

Family, economy, and polity are interrelated subsystems within the society. Salient features of modern society are occupational specialization, the differential economic and social evaluation of occupations, and the elaboration of status groups and categories based on the family unit and arranged in a stratified order. Evaluations of this order are usually expressed in two ways: (a) in differential capacity to acquire consumer goods and services; and (b) in differential respect and esteem which carry the force of community consensus and range from deference to stigmatization and rejection.

If we could only face it, most of the industrialized world is at, or close to, an economy of abundance, otherwise nations could not afford to indulge in extra-terrestrial adventures which are highly unlikely to reduce the tensions or solve the problems in Watts or Harlem or the Deep South or, for that matter, anywhere else in the world. In simple justice, then, we should concentrate on providing aid to lower status levels and on the abolition of poverty and other forms of discrimination. The basic condition to all forms of security is economic security. Though this will not, of itself, guarantee a supportive environment, its absence makes other features of such an environment difficult to attain.

People are persons, though the unenviable wage scale given to the least attractive work enmeshes the lowest level families in what Srole calls "the often verbally guarded but behaviourally unconcealed process of stigmatizing and rejecting them as a lesser breed of human animal."[3] Moreover, disparities in economic returns generate (usually through repression into the unconscious) frustrations, hostility, and reduction of ego strength on the part of the "have nots." The "haves" suffer guilt, based perhaps on the cultural self-contradiction of a community which declares that all men have equal access to the dignity and material necessities of the human estate, yet in practice denies this democratic canon. Much the same process probably operates with groups and nations.

In addition to the strain that poverty places upon adult individuals, the family under prolonged economic hardship is subject to frequent crises, such as parental disability, unemployment, or death, which undermine its stability, so that the overwhelmed, poverty-stricken family tends to disintegrate. Effects directly generated by poverty combine with handicaps in personality resources, social skills, and family cohesion and are augmented by the community's stigmatization-rejection process to form a reinforcing complex of factors which bear heavily upon the children. The offspring of families of low socioeconomic status at all adult age levels reflect maximum vulnerability to mental ill-health and minimum fulfillment of "wellness."[4] The Joint Committee on Mental Health and Illness agrees that the financial strain placed on individuals and families below subsistence level is inimical to the maintenance of the mental health of adults and the social and emotional development of the children involved. It adds that even the largest U.S. cities have too few and too poorly equipped resources on which those in need can draw.[5]

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[3] Leo Srole et al. Mental Health in the Metropolis. The Midtown Manhattan Study, Volume I. New York: McGraw-Hill Book Company, 1962. p. 376.

[4] Ibid.

The major damage, however, that poverty brings to the child is damage to his self-image, his ego defences, and his motivational energies. Though the data point to the greater resiliency of youth, most surveys show the relationship between mental disorder and socioeconomic status as stronger than that for any other demographic variable. Restriction in the motivational energies of youth means social loss, as many (or most) of the most able of these deprived classes do not continue their education to fill the growing number of skilled positions available in a technological society.

The accumulation of poverty-stricken families in one area is accentuated by the socioeconomic segregation of the large city, where neighbourhood support for the individual or family varies with the economic level. Cross-community contrasts show the value of cultural settings in which high standards of intellectual and social achievement, responsible community leadership, and finance help to obviate mental illness and subcultural conflict.[6] Other data also point to less disturbance on the part of those of higher status, perhaps due to the self-esteem which comes from loving (but not overindulgent) parents and acceptance by other subgroups.[7]

I would agree with Wilson that poverty in cities is to a large extent culturally inherited--"a vicious cycle of too-large families, too-weak families, families headed by mothers and deserted by fathers, families victimized by racial prejudice, by lack of a sense of opportunity and purpose."[8] Equally I would agree that we must eliminate the pattern of joblessness which promotes the cycle of diminished self-respect, desertion, and dependency.

Occupational Life

The Crowther Report states that children "are individual human beings, and the primary concern of the schools should not be with the living they will earn but with the life they will lead."[9] This quotation misses the point that the life a man leads is to a large extent determined by the living he earns. Most people get a living by working for it. In societies where the work ethic is dominant, work serves to direct the individual's energies and internal resources and to give him a sense of relationship to his society.[10] Work obviously becomes woven into the pattern of a person's life, so that another area that needs attention is that of providing entry to the work force for school leavers. High unemployment rates in the 14- to 21-year-old group (in the United States they are usually twice as high as in the labour force as a whole) mean waste of manpower as well as frustration for young people. The increasing youth population and changed labour force requirements may well lead to an increase in school dropouts and add to the rising delinquency rates.

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[5] Joint Committee on Mental Illness and Health. Community Resources in Mental Health. Monograph 5. New York: Basic Books, Inc., Publishers, 1960. pp. 377-78.

[6] Ibid.

[7] Langner and Michael, op. cit., p. 27.

[8] James Q. Wilson. "Urban Renewal Does Not Always Renew." Harvard Today, January 1965. pp. 2-8.

[9] Ministry of Education. 15 to 18: A Report of the Central Advisory Council for Education (England). (The Crowther Report.) Volume 1. London: Her Majesty's Stationery Office, 1959.

[10] Nancy C. Morse and R. S. Weiss. "The Function and Meaning of Work and the Job." American Sociological Review 20: 191-98; 1955.

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Youth problems, like other social problems, are greater in the slums; and it is here that unemployment is greatest, education poorest, and motivation weakest. One report suggests that for those with less than a complete high school education, both general and vocational programmes are inadequate, particularly for girls, and that realistic occupational choice and meaningful preparation for that occupation play a crucial role in motivating the potential dropout to fit himself with enough education for his purposes.[11] In any society where the occupational role plays such a dominant part in the tangible and intangible rewards which accrue to the individual, students need to be reassured that school is meaningful and that they do not face a dead end when they leave it. Occupational role in modern society plays an important part in the search for identity. If, therefore, we want youth to feel that they have a contribution to make to society, we must provide meaningful job opportunities, even if it is necessary to set up subsidized work programmes.[12]

The World of Work

Once a man has obtained a job he may still be subjected to occupational stresses arising not only from physical or technical demands, but also from the nature of the work situation, his relationships with his fellows, and the work climate. Industrial workers may face job insecurity and the particularistic attitudes of supervisors or they may see their carefully built-up interpersonal relationships threatened by labour turnover or work reorganization. Many writers have suggested that workers suffer from feelings of frustration induced by the monotony and meaningless nature of the work; other writers tend to discount this. Certainly we may want to arrange assembly lines into more individualized work groups to provide variety and idiosyncratic pacing. We may need radical reconstruction of the work process to humanize and enliven it, to learn how to alternate challenge and routine. In a world of diminishing hours of labour, we need to deal effectively with the relationship between work and leisure.[13]

If the Marxian concept of alienation--the effect of sociotechnical systems on human satisfaction--is still a valid one, we do know that such alienation is likely to be unequally distributed through the work force. In the craft technologies it will probably be lowest; on the assembly lines, highest. Here the impersonality of the large plant, the meaninglessness of repetitive work, and the lack of responsibility may press upon the worker, so that typically the job means little more than a weekly paycheck. But automation may change this, in the sense that the worker thinks it involves more skill and more responsibility.[14]

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[11] Educational Problems and Urbanization. Summary report of a conference, May 28-29, 1962. Washington, D.C.: U.S. Department of Health, Education, and Welfare, U.S. Office of Education, Pamphlet No. OE-10021.

[12] Ibid. See also: David Riesman. "A Search for Challenge." In: D. Riesman. Abundance for What? New York: Doubleday & Company, Inc., 1964. pp. 349-67; and James B. Conant. "Social Dynamite in Our Large Cities." In: August Kerber and Barbara Bommarito. The Schools and the Urban Crisis. New York: Holt, Rinehart and Winston, Inc., 1965. pp. 170-85.

[13] David Riesman and Warner Bloomberg, Jr. "Work and Leisure: Fusion or Polarity." In: C. M. Arensberg et al., editors. Research in Industrial and Human Relations. New York: Harper & Row, Publishers, 1957.

Continuous-process technology seems to have low alienating tendencies. As technology progresses we shall need studies of the technological, economic, and social factors that produce distinctive sociotechnical systems and their likely effect on work relations and alienation. We know automation is likely to make for cleaner, lighter work, to hasten the decline in the importance of manual skills, to increase responsibility, interdependence, and integration of the organization. Perhaps automation will also eliminate that distinction between handwork and brainwork which has been a central element of stratification systems in industrial society. But in transitional periods, the perception of unemployment or skill obsolescence may produce tension, conflict, and disorganization for workers who see their jobs threatened by machines. A need seems to exist for thoughtful preparations for change in which workers must participate. Evidence suggests that intragroup pressures toward change are the more compelling ones and that these pressures occur if there is shared realization of the need for change.[15]

At the managerial level, occupational hazards are of a different nature, due to the competitive situation where everyone is striving for upward mobility in a close interpersonal situation in which the identity of one's competitors is known. Another danger is an increasing concern of the policy-forming managers for the "loyalty" of all workers, particularly the "management team." The grave apprehension with which they view lack of uniformity of doctrine and policy has been documented in Whyte's picture of the "organization man."[16] A most rational approach to the problem of conflicting viewpoints (which I see as necessary to my emphasis on heterogeneity) comes from the Center for Research on Conflict Resolution at the University of Michigan.[17] This approach sees conflict not merely as a phenomenon occurring in groups and organizations, but as a system, subject to laws and principles which allow it to be explained and controlled (that is, managed in creative ways). The civilised method of resolving conflict, according to Shepard, is problem solving, which requires "trust and mutual identification."[18] Its incidence is unfortunately low, but it looks as though "trust and mutual identification" might well serve as general objectives for educational experiences.

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[14] William A. Faunce. "Automation and the Automobile Worker." Social Problems 6 (1): 68-71; Summer 1958.

[15] See particularly the contributions of the "human relations" school in industry, for example, Lester Coch and John R. P. French. "Overcoming Resistance to Change." Human Relations 1: 512-32; 1948.

[16] William H. Whyte. The Organization Man. New York: Simon & Schuster, Inc., 1956. 429 pp.

[17] Robert L. Kahn and Elise Boulding, editors. Power and Conflict in Organizations. London: Tavistock Publications, 1964.

[18] Herbert A. Shepard. "Responses to Situations of Competition and Conflict." In: ibid., pp. 127-35.

Cultural Lags

Within the economic sector, interdependence means that decisions of large industrial corporations refer closely to the public interest, so that increasingly government is required to supervise and regulate decisions which affect the community. We need to outgrow culturally dated ideologies such as the 18th century notion that good government is minimal government, or that enlightened self-interest promotes the social good, or that taxes are what governments take away from people, when in reality they are the price men pay for the essential services of collective living.

Because within our societal structure each new technological contribution produces cumulative effects throughout the whole system, we can no longer take refuge in the "value-free judgment" which scientist and engineer have tended to claim for so long. No man is an island: no man can claim that the social implications of his work are not his responsibility. We must change professional training so that professional ethics take account of the way in which inventions, discoveries, techniques, or processes are used. The increased use of professionals in bureaucracies means that this is not an easy job, because they are employed in subordinate roles and rewarded for viewing themselves as technical auxiliaries ("staff" as against "line"). As a result, there is a "rationalized abdication of social responsibility in favour of the administrator."[19]

Bureaucracy

Some of the psychosocial problems of the worker have been remedied by the growth of the human relations movement in industry.[20] But one societal characteristic seems unlikely to alter, that is, the growth of bureaucracies (I use the word in a technical, not a pejorative sense). In modern society, the individual voice cannot be heard, so that only by joining organized groups can people have any chance of exerting some influence in the larger community. Yet it is not only in industry, commerce, government, and education that bureaucratic organization is increasing.

There is also a tendency for voluntary associations of an essentially democratic nature to take on bureaucratic forms. Yet bureaucratic and democratic structures are organized on different principles. Bureaucracy implies that considerations of efficiency are prepotent: the rational judgment of experts and disciplined obedience in the hierarchy of authority contribute to uniform operations and effective coordination. A democratic structure requires freedom to dissent and the free expression of conflicting opinions. Though it may not be expeditious, this is the only sort of structure by which we can determine the social objectives demanded by my original five points. The attainment of these objectives, once they have been determined, requires the efficiency of the rational-legal structure.

There is potential danger to what we understand as democratic processes in the bureaucratization of those organizations which have the dual purpose of deciding on common objectives as well as of carrying out decisions about them. Increasingly, business corporations are run by boards of directors rather than stockholders, political parties by national committees, power groups, and the political machines. Differentials are thus created in political and social power. These violate the principles enunciated earlier by allowing a few individuals in control of the bureaucratic apparatus to exercise more influence, particularly upon governments, than others in the society. Obviously we need intermediary organizations providing participative experience to lessen the apathy and stimulate the concern of the general population with affairs of common moment. Criticism of "red tape" and of bureaucratic methods may serve as a psychological substitute for opposition to policies which violate individual interests, but this is no adequate substitute for the freedom and ability of the individual to disagree with existing policies and power structures.

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[19] Robert K. Merton. "The Machine, the Worker and the Engineer." Science 105: 79-84; January 24, 1947.

[20] Ibid.

One of the main tasks, then, of what Fromm calls a sane society is to combine the efficiency of centralization and bureaucracy with the effectiveness of participative action. It would also help if, in industrial relations, we worked on the assumptions of what McGregor calls Theory Y rather than Theory X.[21] The first assumption of Theory X is that the average human dislikes work and avoids it if possible. Because of this, people must be coerced, directed, controlled, threatened, to get them working for organizational objectives. The average human prefers to be directed, avoids responsibility, has little ambition, and desires security above all. By contrast, Theory Y suggests that the expenditure of energy in work is natural and that there is no inherent dislike of work. Depending on controllable conditions, work can be either a source of satisfaction and voluntarily done or a punishment to be avoided, if possible.

External controls and threats of punishment are not the only sanctions available. Man can exercise self-direction and self-control in pursuing objectives to which he is committed. Commitment is a function of rewards, the most significant of which are ego-satisfaction and self-actualization. Both of these can be produced by effort directed toward organizational objectives. Avoidance of responsibility, lack of ambition, or emphasis on security are not innate, but learned through experiences. The capacity to exercise a relatively high degree of imagination, ingenuity, and creativity in the solution of organizational problems is widely rather than narrowly distributed. Under the typical conditions of modern industrial life, the intellectual potentialities of the average human being are only partially utilized.

It is fairly obvious that the assumptions about human attitudes and behaviour underlying these two theories are not confined to the occupational world, but are related to value orientations. That is, they are generalized and organized conceptions, influencing behaviour, of "the desirable and non-desirable as they relate to man, environment, and interhuman relations."[22] They concern both the culture and the way the individual experiences it.

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[21] D. M. McGregor. The Human Side of Enterprise. New York: McGraw-Hill Book Company, 1960. pp. 47-48.

[22] Clyde Kluckhohn. "Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification." In: Talcott Parsons and Edward T. Shils, editors. Toward a General Theory of Action. Cambridge, Massachusetts: Harvard University Press, 1951. pp. 409-11.

The Family

Various writers have listed the basic "psychic nutrients"--love, care, stimulation, and reassurance--or the "psychic needs"--adequacy, security, recognition, and new experience. These are mediated so differently in culture, subculture, and family that one must talk here either at the general level or in terms of pathogenic factors. Because the family social system is the major setting for individual personality development, much of the material already discussed must be interpreted in terms of the enculturation process carried out within the highly-charged emotional context of a particular family. The way in which an individual experiences his society will be of great significance in determining the extent to which his responses will be maladaptive and self-defeating, or adaptive and constructive; this experience will be partly determined by parent-child relationships.

Again we seem to know most about pathogenic factors. The child needs protection, but not overprotection. Dominative overprotection appears to lead to dependency and submissiveness, indulgent overprotection to rebelliousness, aggressiveness, and cruelty.[23] Rejected children appear more rebellious and unfriendly and less confident. Dominated children tend to be submissive, retiring, orderly, clean, and reliable, characteristics which may recommend them to teachers, but which inhibit their development as individuals.

Bronfenbrenner has suggested that changing American trends in child-rearing patterns may have undermined capacities for initiative and independence, particularly in boys.[24] Due to overemphasis on "the democratic family," males may be more conforming and anxious, less enterprising and self-sufficient. Changes in balance of power in the family, particularly in the middle class, accentuated by trends towards bureaucratization in the society, may lead to the growth of more adaptable but conforming adults, for instance, Whyte's "organization man," Fromm's "market-oriented" person, or Riesman's "gladhander."[25]

If, on the other hand, continued pressure for achievement is exercised primarily by the mother, if mother dominance is the optimal context for development of motivation to excel, and if high achievement flourishes in a family context of "cold democracy," we may expect high planfulness and performance, but also more tension, aggression, and domineering behaviour. The major problem in enculturation is to strike an adequate balance between initiative, creativity, and social responsibility. This is a sobering thought, particularly when we consider the warnings of Ruth Benedict and Jules Henry that the school inculcates docility.[26] Benedict, indeed, talks of a society "that has systematically minimized opportunities for preadult self discipline."

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[23] D. M. Levy. Maternal Overprotection. New York: Columbia University Press, 1943. The importance of family factors in both delinquency and neuroticism is stressed by Ivy Bennett. See: Ivy Bennett. Delinquent and Neurotic Children. London: Tavistock Publications, 1960.

[24] Urie Bronfenbrenner. "The Changing American Child." Journal of Social Issues 17 (1): 6-17; 1961.

[25] Whyte, op. cit.; Erich Fromm. Man For Himself. New York: Rinehart and Company, Inc., 1947; David Riesman, Nathan Glazer, and Reuel Denney. The Lonely Crowd. New York: Doubleday Anchor Books, 1955.

[26] Ruth Benedict. "Transmitting Our Democratic Heritage in the Schools." American Journal of Sociology 48: 722-27; May 1943; and Jules Henry. Culture Against Man. New York: Random House, Inc., 1963.

We might also consider the type of male and female images we present in the enculturation process of youth. Lipman has suggested that while a value system stressing physical prowess as a major component of the male image may be functionally related to a frontier and rural society, technological evolution has rendered this image dysfunctional for modern industrial society.[27] If we wish urban males to continue to prove their manliness in terms of a masculine image highly dependent on physical prowess, we must present opportunities for the exercise of these qualities, perhaps in National Service other than war or preparation for war. Otherwise the courage and nerve necessary to face danger and hardship may be squandered in defiance of adult authority, "toughness," games of "chicken," or crime. Similarly, we perhaps should make it clear to girls that the domestic pattern, the career pattern, the glamour pattern, and the good companion pattern are all acceptable female images per se rather than expecting any individual to be all four rolled into one.

The Society

In stable, slowly-changing societies, where family functions were more extensive, the family was more closely related to other institutions. In our type of society, with its trend toward the isolated, neolocal, bilateral, nuclear family, we need to build institutional support. Some of the environmental stresses may be reduced by better education; by gradually integrating religious, racial, and national minorities; by eliminating some of the major inequities associated with social class differences; and by offering better health programmes and more widespread preventive medical care. As far as underprivileged groups are concerned, equitable treatment alone is not sufficient to allow them to catch up with the rest, or even to keep level with them. They need a helping hand. In thinking of the enculturation of children in family (and school) we might expose parents (and teachers) to more appropriate child-rearing practices and attitudes through maternity hospitals, infant welfare clinics, and the mass media (particularly TV and the paperback book) with the aim of building up confidence, ego-strength, frustration tolerance, and acceptance of change.

We also need to increase the part played by agencies created and organized to render economic and social support, including psychological and psychiatric services for those who need them in an increasingly complex society. One important factor here is the attitude of those who staff such services. Many of the professionals and pseudoprofessionals of an industrial society would seem to have developed the social character and cultural values of Spindler's traditional pattern.[28] Emphasis on respect-ability, thrift, self-denial, and sexual constraint; future orientation; and deferred gratification support the work success ethic with its inference that anyone can get to the top if he works hard enough and that unsuccessful people are lazy or stupid or both.

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[27] Aaron Lipman. "Cultural Lag and Masculinity." Journal of Educational Sociology 35: 216-20; January 1962.

[28] David Riesman, Nathan Glazer, and Reuel Denney. The Lonely Crowd. New York: Doubleday Anchor Books, 1955; Talcott Parsons and Winston White. "The Link Between Character and Society." In: Talcott Parsons. Social Structure and Personality. New York: The Free Press of Glencoe, Inc., 1964. pp. 183-235; George Spindler. "Education in a Transforming American Culture." Harvard Educational Review 25: 145-56; 1955.

Yet what is necessary for the ameliorative agents of a society is a recognition that people are as they are because they have learned to be that way. Current terms like "cultural disadvantage" and "cumulative deficit" imply just this. So we need acceptance of people as they are, a desire to help them to change, and a programme of reeducation largely based on techniques of coping with the environment. Of course, as suggested earlier, we may need to alter the environment as well, but essentially in this field the assumptions of Theory Y are more useful than those of Theory X.

The traditional values of puritan morality, the work success ethic, individualism, and orientations toward future time and achievement were probably most appropriate to the middle class subculture and a society in the production phase.[29] Whether they are appropriate to and accepted by other classes, especially in a consumption economy, is a matter for empirical investigation. Spindler's enunciation of emergent values--a more relativistic moral attitude, greater sociability and group conformity, and a hedonistic present-time orientation--is at least 15 years old. Now we see signs of young people, many of them middle class, who refuse to accept their present environment or who question the cultural norms, or who are disturbed by the cultural contradictions and discontinuities.

Two paradoxes present themselves. For years, educators have been aiming at independence of thought and social responsibility on the part of students. Yet when they get these conditions, educators become disturbed and ascribe the development to a two percent subversive minority. Those who want changes in the established order of things are always looked upon as subversives. The second paradox is that, despite increasing emphasis on problems of leisure in the automated society, we are horrified if individuals or groups do not see success as a constant goal nor work desperately and continuously to convince themselves of their worth through its attainment.

None of the measures suggested, however, is of value unless the individual can safely interact with his environment. Maintenance of the rule of law and protection from crime and violence are central social problems, especially in cities. Order must be maintained or, if necessary, restored, and violence in all forms outlawed as incompatible with the viability of contemporary society. This will need changed attitudes toward the police force, both on the part of citizens and on the part of the police themselves; appropriate education leading to professionalization; and increased social responsibility on the part of every citizen.

The problem centre of man's world is now the city, that "last frontier and last unconquered environment."[30] Much has been written, and done, about urban renewal, but this is as much a cultural problem as a physical one. Two or three measures may be suggested as conducive to the sort of urban social environment I have in mind. One, in general terms, is to strengthen family and neighbourhood ties, to generate social responsibility within a neighbourhood subculture through purposeful activities to which local inhabitants can commit themselves. More specifically, as we have already suggested, employment must be available or, if necessary, created, particularly for the school leaver. Low cost housing must be provided and an adequate preventive and remedial physical and mental health service--free.

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[29] Spindler, ibid.

[30] Charles Abrams. The City Is the Frontier. Evanston, Illinois: Harper & Row, Publishers, 1965.

All sorts of objections will be raised, mainly in terms of McGregor's Theory X or of the psychological defence mechanisms. But we live in an interdependent world. We have moral and religious value systems which in simple though general terms provide the framework for ideas about the good life. We have a growing body of appropriate knowledge and techniques derived from the social and behavioural sciences. In the industrialized countries, at least, we have sufficient resources to enable us to tackle the problems of the city, which are essentially those of man's relations with man. I happen to think that the elimination of discrimination is more important than the composition of the planets and that man's continued occupancy of the earth in any reasonable state of mind is less dependent on whether six men can get to the moon and back than on whether any man can walk the streets of any large city at any time with confidence, safety, and dignity.

Edmund W. Gordon

Building a Socially Supportive Environment

The advanced technology of modern communications has created a condition in which the contradictions of complex social order; the atrocities of interpersonal, intertribal, and international conflicts; the inequities inherent in practically all of our social systems; as well as the richness of our cultural and technical accomplishments constantly bombard the human spirit with relentless assault and stimulation. Human beings, accustomed to far simpler social environments, have reacted to these inputs with habituation or adaptation. As these inputs increase in complexity and intensity, the process of habituation is likely to accelerate and the processes of adaptation must become more complex. Some observers see these processes reflected today in growing insensitivity to social and moral indignation or shock; increasing insulation and isolation in personal-social interchange; alienation from the concepts, institutions, and affiliations which heretofore have provided stabilizing points of reference; and disaffection or loss of a sense of faith in nature, in society, in authority figures, or in oneself as continuing influential forces.

These adaptations are probably enabling man to exist in a progressively threatening environment. They may also, however, be the mechanisms of his extinction, since adaptive behavior at one stage of development may be counter-adaptive at another. The protective adaptation of the human personality to the rigors of the increasingly polluted social environment may result in the isolation of man from essential sources of support for his personal and spiritual survival. What seems essential, then, to the continued development and survival of man is a concern with reciprocal adaptation. Man's survival will increasingly depend on man's capacity to adapt to his changing environment as well as on his ability to adapt the environment to his special needs.

Relationship Between the Individual and the Environment

Keeping in mind this need for reciprocal modification, what are the dimensions of the relationship between the individual and his environment which are essential for continued adaptation and development? What is required is a complex balance, which must be maintained in three essential areas. The first dimension involves the balance between congruency and incongruency, which must be maintained in such a manner that the organism and environment are "at home" with each other, yet still in a state of sufficient tension that the relationship and its components do not become static. Thus it is necessary to maintain enough incongruency between man and his environment to ensure this minimum tension, but always at the risk of an incongruency so great as to be confusing, frustrating, disruptive, and potentially destructive.

In what might be called the constancy-change dimension, the nature of man's interaction or experience with his environment must be sufficiently stable or consistent to allow for orientation of self with objects and phenomena, yet at the same time must maintain a certain level of and capacity for change so as to keep the system dynamic, and to support a perception and acceptance of change as an essential existential process. This state, which I choose to call dynamic-constancy, thus provides for change while at the same time providing logic and stability on which the organism can depend. A central task of human intelligence in dealing with change is to recognize its many features. There exists at all times a minimum requirement of regular but modest amounts of change, which may occur without dissonance and may allow for easy adaptation. However, there are certain times when radical change may be required as necessary for the development of some phenomena. This degree of change may be necessary to dislodge a recalcitrant force or to reenergize a moribund system. The problem, of course, is to recognize the circumstances that call for which kind or for what degree of change.

A third dimension involves the collective-idiosyncratic-needs balance, which we seek when we deal with the problems of recognizing, allowing for, and respecting individuality within the context of the essential requirements of group survival. Obviously, it is not beneficial to either the individual or the society if he is developed in such a way that his needs are no longer compatible with the survival of the group. On the other hand, group life is threatened and certainly will not be enriched if no provisions are made for the idiosyncratic needs and interests of the individuals comprising the group.

Even before we can begin to deal with these strategic considerations which, we must surely realize, are not beyond the scope of human intelligence and resources, we run head-on into what is at this time a much more troublesome problem: the problem of the value commitments upon which judgments and strategies are based. It seems clear that there are certain human values which must be operative at the individual and at the group level as a first step toward harmony and balance between man and his environment.

Human values stand opposed to such alternatives as conquest through violence, war, or the development of technological and military prowess for power or for prestige. This opposition is in the form of one simple, very basic human value: peace. And I mean not only national and international peace, but also interpersonal peace and peace within each individual. It is probably safe to say these successive levels are interrelated and interdependent. In that case, the important question may be: Toward which levels shall the preponderance of our energies be directed? It is my feeling that because of the interpenetration of the various spheres of human existence, total and lasting international peace can probably not be effected before a large proportion of the world's citizens find some kind of internal and interpersonal peace.

Peace, whether it be individual, interpersonal, or intergroup, involves the nonviolent reconciliation of competing forces. Militaristically imposed peace on the international level, as well as court injunctive or police-enforced pacification on the domestic front, are paralleled by the equally tenuous peace imposed when external forces rather than value commitments dominate an individual in his actions. Neither of the former two leads to true peace, since in both cases the dissonant forces are not truly reconciled; rather they are repressed or suppressed, or in some cases even exterminated--with the concomitant loss to the remaining individuals or parts.

Few people would deny that human values also imply the priority of adequate education, food, health care, and housing for all citizens before other goals such as military preparedness, space exploration, or improved intercontinental travel. Human values imply the necessity for pollution control and the elimination of urban blight rather than such immoral, nationalistic, and jingoistic follies as U.S. involvement in the war in Vietnam. A second condition characteristic of a commitment to "human values" involves political power and economic security for all men. Can it ever be really justified that even one citizen is made to feel powerless by conditions such as economic insecurity, wretched living conditions, or an unresponsive political system which is too involved with power of other kinds even to heed his voice, much less to adapt itself to his needs? Before we can bring about universal application of any set of "higher human values," we must make sure that the basic needs of life are met for every person. It is worse than folly to ask a man to be human if his basic existence as a living animal is in doubt or if his sense of power to influence decisions concerning his life has been destroyed.

Need for a Shift to a Pluralistic Democracy

But let us assume that we somehow attain this minimum level of fulfillment: adequate food and living conditions for all, and equal participation. Is this kind of democracy all we need for the full realization of human values?

A female member of the John Birch Society, participating in a late-night television talk show, was asked to define democracy. In a democracy, she explained, if 51 percent of the citizens decide to do so, they may shoot the other 49 percent! Of course I do not believe this definition to be widely advocated, but I believe it is symbolic of an attitudinal danger we must consider very carefully--that tyranny of the majority that we were warned against by some of the founding fathers of the United States of America 200 years ago. As a society becomes increasingly more complex and varied, its members must come to a full appreciation of democratic pluralism. In the United States today, we have a greatly varied society with tremendous value conflicts and, as we are currently functioning, proponents of one set of values not only have the temporary advantage over proponents of other value systems, but in addition that dominant value system is flexible enough and corrupt enough to accommodate the exploitation and, ultimately, the destruction of other value systems and their proponents.

I suggest that we examine for a moment the histories of Dr. Martin Luther King, Malcolm X, and the Black Panthers. As each moved from ethnocentric and nationalistic positions toward identification with the pluralistic and humanistic concerns of peace groups and groups working for political and economic redistribution of power, they were destroyed. When Dr. King threw his support to the struggles for peace and economic justice, he was murdered. When Brother Malcolm began to advocate inter-colonial and international cooperation to eliminate colonization, to advocate peace, and to bring together the interests of the poor with other minority groups, he was murdered. As the Panthers moved to ally themselves with the radical left and to advocate a united effort against those who advocate war, racial discrimination, and economic exploitation, J. Edgar Hoover--chief spokesman for the national police force--declared the Panthers the greatest internal threat to the nation and appeared to have signaled the concerted effort to destroy the organization. In less than nine months, practically the entire leadership of the group was either arrested, murdered, or driven into exile.

In a pluralistic society, the goal is an integration of admittedly different parts, an orchestration in which the several groups, large or small, share parity of status, and are brought together in ways which accommodate and complement, not threaten or annihilate, each other. Coexistence and tolerance are facts of life, understood and practiced without a second thought because respect for styles of life is a prevalent value. The unique contribution of each of these parts is not lost, though not always distinguishable in the thrust of a society which is working, in varied ways, toward common purposes. This shift from parliamentary democracy to pluralistic democracy will require radical changes in attitude for citizens of even the most democratic countries. It means learning tolerance not only for different ethnic groups, cultural groups, national groups, economic groups, and age groups, but for different ideas, goals, commitments, and life styles.

It means, if groups of all sizes are to be given parity of status, a shift toward participatory rather than representative democracy, so that everyone *really* will be represented or active in government; and toward consensus rather than majority rule, so that minority interests can be dealt with, not just expressed. It means that all must learn to practice nonviolent reconciliation through persuasion rather than forced accommodation through violent confrontation. It requires certainly voluntary limitations on personal freedom to prevent the kinds of "legal" exploitation of human and natural resources which are practiced today. It means a shift in the traditional relationship between property rights and human rights to give primacy to human rights. All these shifts require an almost revolutionary effort before they can be brought about successfully, for they require those two changes most difficult of all to effect: a change in monolithic social systems, and a change in human attitudes.

Still another needed value shift is so closely related to the problems of pluralism that it might even be in danger of being lost in the shuffle. This is the resolution of the conflict between collective and individual rights. How far can we stretch our freedoms without impinging on the freedoms of others? U.S. nationals have often given blind admiration and loyalty to a kind of individual freedom which frequently results in legalized exploitation and abuse of others. The labels "individuality" and "free enterprise" have been used as justifications of a man's freedom to pursue his own interests without regard for the cost to anyone else. The disproportionate use of the world's resources by the United States is a significant example of the results of this attitude's operating uncurbed on an international scale. So is the outrageous economic inequality which is found within that country and between it and other nations of the world. So is the current state of world natural resources about which we are just now, belatedly, beginning to worry. It is clear that we must decide very carefully to what extent an individual's freedom must be limited for the collective good. The delicacy of such a decision is frightening, but the present state of the world shows us all too clearly what the consequences can be if we fail to act and to act wisely.

We have seen, also, the consequences of such a broad definition of the collective good that self-development and self-expression are sacrificed to it needlessly. Too often it seems an inevitable characteristic of human nature to feel threatened when an individual dares to be radically different outside the sanction of some group. We preach individuality, but we have very narrow concepts of self-development: we demand a certain kind of school, a certain kind of college; we feel we must flock to admire a certain kind of art, or to attend a certain kind of theatre. We respect, basically, only a certain kind of life style; alternatives are immediately considered suspect. We must realize that we cannot really have individual freedom and self-development until we cultivate sincere respect for differences.

Vital Goals of Education

It may be that this last value area, respect for self-development and self-expression, is the best starting point for the educational role with regard to these value changes. We can start here by defining equality of educational opportunity as a floor for everyone and an unlimited ceiling--and then we can start looking very critically for the places where we presently do have ceilings. We must realize that this process may well result in amplified differences, and we must be aware of the crucial importance of finding better ways to evaluate ability--for fear of the former and carelessness in the latter are responsible for many of the ceilings we presently have. If educational systems can be brought to institutionalize just this value, we may see the needed shifts in other value areas which will make for a healthier adaptation of man and environment, starting us into a cycle of healthier development and environment and more effective education.

What we need, then, is a rededication to the purposes and goals of education. We must look at what we are doing and failing to do, and suit our actions and commitments to a higher ideal. The purpose of education is not simply to instill knowledge, to train students, or to prepare them to earn a living; education is a process of assisting the student in his development, of refining that development, of preparing him to live a satisfying life.

If we are to aim for individuality in this education process, obviously our educational strategies will have to be more flexible. However, this flexibility does not mean that there are not certain goals to be kept in mind. We will want to help each student toward the development of effective communication skills and attitudes. Since man increasingly depends upon symbols and concepts to orient himself, to move about, and to control himself and his environment, it is essential that we enable young people to use with facility the symbols and languages of the cultures in which they exist. What this essentially means is the traditional "basics"--reading, writing, and arithmetic, so to speak, as well as bilingual skills, where required. The "three R's" imply the important dual nature of this communication: the student should be enabled not only to express his own thoughts and needs, but to receive effectively communications from others.

There is another dimension to this concern for communications skills. Not only should we exert our efforts to make sure that the student acquires the capacity to utilize the instruments of communication; we should be concerned with planting the desire and need to express oneself and the need to be receptive of the expressions of others and the world outside the self. We must help students to develop for themselves the attitudes which facilitate and compel human expression and human responsiveness to others and to environmental input.

A vital goal will be to foster attitudes and skills of inquiry. If we examine it honestly, we will find that education today tends to stifle, not encourage this type of attitude. Skills related to this aspect involve problem identification and definition, and problem-solving strategies. Increasingly, we recognize that problems remain unresolved or are pursued incorrectly because the essence of the problem has not been formulated in a way that makes it answerable. Especially in the societies of today, a major educational need is to develop the skill or capacity for bringing order and system to stimulus situations characterized by chaos and confusion. In such situations, as patterns and incongruencies are recognized and separated, the nature of the problem becomes more clear. Students need to be helped to perceive this confusion not as insoluble conglomerates, but as calls to inquiry.

This attitude of inquiry, however, with all its concomitant skills, is not enough. One needs to perceive oneself as a self-directed and responsible action agent as well as an inquirer. Increasingly man is going to depend upon mentation as opposed to physical manipulation as a means for managing his environment, so that his perception of himself as an action agent requires a kind of bifocal view that action is a mental as well as a physical activity. Inquiry will be seen as purposeful and creative, and creativity will be acknowledged in the management of symbols equally with the management of objects and people.

Having developed into a self-directed and motivated inquirer, and having learned to perceive this process as creative activity, the next step for the student is to develop into an effective processer of information. As information about self as well as environment multiplies, the problem becomes the management of all this information, rather than the mastery of it. For even if one thought it desirable to achieve encyclopedic mastery of all this information, it would hardly be possible. Consequently, the task is to learn how to process it in a manageable way as an instrumentality for problem solving, as well as for communication.

Admitting the vast complexity of knowledge and problem situations in the world today suggests, but provides no answers for, the most critical unsolved problem: man's capacity to relate to other men. With the growing complexities of advanced and crowded societies, the relationships between individuals and groups and the management of collective production and collective waste become essential to the survival of man. We are not far away from the point where the material survival of man is solved or soluble. But now the urgent problem is his spiritual survival. The disadvantaged people of the future will not be economically poor; they will be the ones who are incapable of social coping, who cannot use themselves in meaningful and satisfying ways with other people.

Finally, we must ask toward what goals all of these activities are directed. In a period, should we ever be able to reach one, when the survival, the relative happiness, the development, and the welfare of all individuals in the society become the focus of the political commitment of that society, there is no more overriding value than humanism. Property rights, individual rights, institutional rights, all must come to play an instrumental role to advance, rather than retard, human rights. The school of today can make clear its commitment to the goal of this type of society, and can show faith in all of its students as the most powerful instruments for working toward that goal.

Changes Needed Within Educational Institutions

What sort of an institution is it which can best work in these directions? It can be defined, in broadest terms, as one which utilizes its environment so that the school becomes a learning community and the community becomes the school. Educational experiences can occur in the supermarket, the lawyer's office, the local hospital. Education occurs in reading the press, in political activity, in community service. When all community activities are seen as having this educational potential, the school can play a mediating, coordinating, and interpretive role as the students sample the lessons to be learned.

This plan suggests some basic changes in the concept of the school's physical structure. The key idea is flexibility, and perhaps for the future we should declare a moratorium on the construction of all large school buildings, possibly all school buildings. Whole new attitudes toward school could be built by decentralizing education into homes, farms, apartment buildings, store fronts, parks, camps. Where buildings are created they should be concentrated in educational parks, with units small enough so that youngsters and their parents may positively identify with the learning center, although perhaps large enough to maintain a mix of communities of cultural, economic, and ethnic backgrounds, as well as a variety of faculty and supporting resources. A possible organizational model might be a 5,000-pupil educational park divided into units of 500 pupils.

The organizational administration of such an institution should be based on certain principles which are notably lacking in today's schools. I mean by this participatory democracy, freedom, a humanistic approach to authority and discipline, and an effective leadership concerned with educational and conceptual issues, not merely administrative problems. The major authority for policy in the schools should be in the hands of parents, students, and faculty, in various proportions, depending on the age of the students. In junior and senior high schools, students and faculty should have major control; parents and faculty should share this function in the grade schools. At the junior and senior high school levels, discipline should be handled by students, with some guidance from faculty. In general, parents and community should be actually, not just nominally, involved in decision making.

The staff of these schools should be in many ways different from what we have today. The academic achievement and ability of a teacher are not as important as personal qualities or humanistic characteristics such as the capacity to empathize, to use oneself in the development of another, to understand and interpret knowledge and experience in the light of the youngster's experiences. We must seek our teachers among people who view themselves as movers of the society, changers and controllers of the environment, not simply possessors and purveyors of information.

To accomplish this shift in staff, we must turn to the communities themselves, realizing that formal academic credentials are not always needed, that politico-social competence can be an equally valuable asset.

Community acceptance is an important credential. Susan Smith may be the woman in the community most people turn to for help with problems; has she not passed the colloquial or practical test of competence? Indigenous people can help youngsters perceive and express themselves as controllers of their own destinies. What better source of instruction can a child have than people from his own background who are in fact successfully coping with the exigencies of difficult environments?

This is not to suggest, of course, that the school does not need people who are masters of the accumulated knowledge and skills of the society. A variety of talents can be utilized to give the broadest possible educational experience. Having placed these kinds of human resources in the school, we must help them function as facilitators of development rather than directors of development. They will have to be people who have faith in the potential for development of the youngsters they work with, who see themselves not as determinants of a product, but as facilitators of a developmental process.

With these changes in staff and teaching will come changes in educational approaches. One of the most important concepts to be explored is individualization. It should be noted that education as a group process probably emerged out of economic need, that is, large numbers of learners and few teachers. Learning, which is the critical process in education, is essentially an individual process which grouping sometimes facilitates and sometimes retards. We came to the grouping of youngsters as a means of providing education to large numbers of young people, utilizing physical and human resources better. In the future, when we talk about education we have to talk about the manner in which characteristics and needs of a particular learner are complemented by the characteristics of specific learning situations. Since the effective environment, the receptor function, and integrative capacities of individuals are known to be idiosyncratic, effective educational strategies must be developed in relation to these particular characteristics. Some may function in much the same way and can be grouped, but grouping should flow from an individually determined need, rather than learning experience flowing from a grouping need.

In order for the school to develop the capacity and to discharge its responsibility for individualization in educational design and delivery systems, pupil assessment must emphasize qualitative pupil appraisal. The appraisal process must be one which results in data which can be used to prescribe the educational intervention rather than to predict the educational outcome. Quantitative approaches to assessment may have been reasonably appropriate to earlier sorting functions in education when the task was to identify those children most likely to succeed in relatively static educational treatments. The qualitative appraisal is more appropriate to the school's concern for stimulating, nurturing, and ensuring that development does in fact occur.

In such an individualized approach to learning, evaluation takes on an expanded function. We will not only be concerned with assessment, and the position of individuals in relation to the group; we are even more concerned with task and criterion mastery, where the purpose of evaluation is to determine the extent to which and the manner in which each individual has mastered the prescribed learning tasks. The individual and his criteria become the standard against which he is judged. When his performance meets the designated criteria, he becomes eligible for certification as having mastered a particular unit of learning. If relative position, or ranking, becomes an important consideration, perhaps this function should be taken over by another institution, as it seems to bear no relevant relation to the learning process. Also, the curriculum will focus on process as opposed to content. The content of lessons, whatever form they may take, will serve as vehicle for "learning how to learn" and how to control symbols, information sources, and reasoning processes through which we formulate and solve problems.

Competence To Be Developed

The immediate and demonstrable effects toward which these efforts will be bent are best described as the development of certain types of attitudes, skill, and competence. The educator, of course, hopes that his efforts will elicit in the student an attitude of respect for knowledge and skill as instruments for doing something with the environment. However, despite this eternal preoccupation with how to motivate the child, behavioral science research and theory have established the fact that the behavior of all living things is characterized by a phenomenon best described as intrinsic motivation. That is, all living organisms are attracted to features of the environment which are mildly stimulating and are in congruence with past experiences or the current state of the organism, while they are repelled by strong and abrasive sources of stimulation and environmental forces that are dissonant or incongruous. For example, when mice are confronted with a set of alternative mazes, they will consistently choose to explore that maze which is slightly more complex, rather than one to which they are accustomed, or one which is radically different or much more complex than what they are used to. In the same way, programmed instruction works successfully because youngsters tend to move spontaneously from one task to the next when these are presented in a sequence which permits an easy and natural flow from a lower level of complexity to a slightly higher but related level.

The task of curriculum is to harness this natural affective force in the behavior of youngsters and to help it to become reflected in a respect for knowledge and skill as the instruments to be utilized in the expression of this intrinsic motivating force. This makes it necessary to avoid learning experiences that either destroy the flow of this intrinsic motivation or distort it or guide it away from the essential developmental tasks. Important as other aspects of the teaching-learning process may be, the attitudinal aspect may be the most critical and the one most under the control of significant adults. From the Coleman data, we find that of all the factors investigated by him and determined to be related to school achievement, attitude toward self as a learner and influencer of one's future stood second only to family background in accounting for variation in achievement levels.[1]

Following hard on attitude as a concern in curriculum is the building of the basic skills. Systematic perception and organization of environmental inputs, investigation and control of these inputs, as well as predictions with respect to them require that the organism have a group of organized responses to the environment. To respond to each encounter as if it were an original encounter is inefficient and counter-productive to cognitive and technical environmental control. These systems of organized responses are what we call skills. By using them, we shortcut the problem of responding to a situation each time by having to work out a new strategy.

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[1] James Coleman. Equality of Educational Opportunity. U.S. Department of Health, Education, and Welfare, U.S. Office of Education. Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office, 1966.

It is our task, then, to help each student become an individual who is attitudinally oriented to the environment as a phenomenon to be engaged, understood, and controlled, and who has in addition a body of skills which he can use in perceiving, understanding, and controlling. He is now prepared to engage in the activity of environmental manipulation, to get involved in action, in contact with things or with symbols of things. This is where competence enters. We can define this concept as the synthesis of attitudes and skills expressed through environmental interactions to result in the identification and systemization of environmental inputs, the generalization to broader categories of stimuli, and the inference of associations and relationships leading to conceptualization.

Attitudes and skills, thus, are the foundations; the goal is competence, which may be expressed in a variety of ways. The first is affective competence, which is the ability to feel, to be appreciative and confident of self, to be self-directed. This type is closely associated with social competence, which is the ability to use oneself effectively in relation to other people and things. We also can distinguish cognitive competence, defining it as the ability to recognize and to conceptualize. Finally, there is political competence, which is the ability to use oneself and one's group members in social situations for the purpose of getting what one needs from the system.

It is important to examine this last area of competence, and to make its achievement a separate goal--politicalization. It may be that this process is best achieved through the kinds of activities we now call "extra-curricular," but its importance should rank it equally with any other aspect of the curriculum. For a potential citizen to be a competent, powerful, and wise member of the political and social system is surely a more crucial consideration than for him to have mastered the scanning of a Shakespearian sonnet, the laws of physics, or the ways of solid geometry.

This competence can be developed by the encouragement of the kinds of student activities in which students have a real stake, which they originate and which they direct themselves. "Student power" should cease to be a phrase which puts a glaze of panic over the eyes of school administrators; it should come to be a major educational tool. The school years are the best time for students to learn the ways of power, how it can be used to advantage, and even misused. This is an area in which models from the community can be especially well utilized. Students should be encouraged to become involved not only in school activities but in projects of real significance within the larger community. The role of the school in the development of this competence is a very significant one, since the school is one of the first institutions with which the students come in contact.

While cooperating with the students in every possible way, the school should not allow itself to become totally effaced, or to ignore its beneficial role as a sort of benign adversary in the process of change. There is a distinction between institutional stability and institutional rigidity and recalcitrance, and this distinction is important for students to learn from their experiences with their school. The goal should be a stable atmosphere in which reason prevails, and is expected to prevail. It is in the best interests of the students to learn early that certain kinds of environmental-institutional strengths are necessary to the stability of the society and also that certain qualities of strength must come to characterize new institutional patterns before they will be effective substitutes.

The concerned educator will have before him a monumental task if he is to keep in mind all these goals. But through all the efforts involved in bringing these ideas to fruition, there is still another crucial problem. This problem might be described as the maintenance of a climate for learning to be the person "me" at the same time as learning to be the person I can become. This means helping students to accept themselves as they are, but at the same time helping them to examine the possibility of becoming something more and something different. The high hopes of the educator must never mean that the student is not treated as a person desirable and worthy just as he is. We are always in the process of becoming, and this is most dramatically true in the case of students; but it can never be beneficial to anyone to be treated as mere potential. On the other hand, too static a view of the student at hand should be rejected, for this view results in the kind of attitude frequently found in too many of our ghetto schools today: "Once a slum child from a poor school, always a slum child from a poor school." Our estimates of what these children can become are critically inadequate.

Perhaps the best tactic the teacher can use is constantly to ask himself, "What is this child on his way to becoming and how can I help him get there?" Once this view is firmly accepted and established, a number of problems related to the educational experience will be more easily solved. It will be understood that those experiences which are not somehow related to the student and what he is becoming are simply not relevant. It will become a justifiable rule that the relevance of such experiences must be established; if a student cannot be convinced that a certain thing is relevant for him, the chances are good that that experience really is not relevant.

Essentials of a Supportive Environment

This faith in the judgment of the student brings us back to an essential characteristic of the supportive environment. In order for the student to have this much faith in himself, all the necessary supportive aspects must be incorporated into his effective environment, those aspects of the environment of which he is aware and to which he is responsive. We are not operating in a vacuum; the environment must be engaged if we are to modify or change it, and the student must be involved with it if it is to function to provide support. However, in our zeal to provide this supportive environment, we must not overrule the youngster's own wisdom about what is or is not supportive. If the relevance of some aspect of the supportive environment cannot be made clear to him, then, almost by definition, it is not so supportive. If, for example, a decision is made to exclude "unauthorized persons" from the school building, and included in this category are certain people whose exclusion seems unfair or repressive to the students, the climate for learning is at least as disrupted by their resentment at the rule as it could be by the presence of those persons the school is trying to exclude.

This sort of problem is illustrative of the delicacy of reciprocal adaptation. If we are so busy trying to protect the structure in which learning occurs that we sacrifice the spirit of learning, then we have failed to practice reciprocity, the eternal principle for the interaction of organism and environment. In all our undertakings, educational, social, or political, we must learn the lesson of this principle, and refuse, no matter how great the temptation, to allow our desire for an "orderly" environment to cause us to sacrifice the spirit of respect for human flexibility, human ingenuity, and human sensitivity.

Yet can schools do all of these things and can they do them independently of the social and political environments in which they as institutions exist? I think not. Joseph K. Hart has said:

> The democratic problem in education is not primarily a problem of training children; it is the problem of making a community in which children cannot help growing up to be democratic, intelligent, disciplined to freedom, reverent to the goods of life, and eager to share in the tasks of the age. A school cannot produce this result; nothing but a community can do so.[2]

Hart's words are particularly relevant today when in too many nations of the world economic exploitation; selfish pursuit of privilege; repressive police and judicial power; and ethnic, racial, and religious discrimination operate to frustrate and preclude the development of the democratic-pluralistic community.

Increasingly, under these conditions, as professional educators we must see our roles as twofold--responsible for the conduct and leadership of formal education and responsible, as professionals who are also citizens, for ensuring that such communities (environments) do come to exist.

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[2] Joseph K. Hart. Education in the Humane Community. New York: Harper & Brothers, 1951. p. viii.

K. G. Saiyidain

How To Accomplish School Reform

The theme, "How to accomplish school reform," has, in our thinking, a place of crucial significance. When we have analysed the kind of man that we wish to educate and the kind of world which will be a worthy habitation for him; when we have studied the patterns of education round the globe and considered whether or not our present schools are able to meet the new challenges, how the schools can be adjusted to new social situations, and how the physical and social environment can become an active ally in the pursuit of worthwhile goals--when we have done all this, we will have to face, as educators, the billion-dollar questions: How can we build a bridge between what-is and what-might-be? How can we actually introduce in school systems the reforms which will enable us, within a reasonable period of time, to implement the decisions and conclusions that we may reach?

Since the conditions and priorities in various parts of the world are so different, it is not possible, in a single conference, to lay down an itemized blueprint of specific reforms. We can mainly consider what are the important principles that should guide us in selecting points of significance in this programme.

I need not take time in analysing and clarifying the various terms that are used in discussing the process of reform, partly because, to my way of thinking, far too much time and attention are given to such analysis--just sharpening our instruments, instead of attacking the problem. There are few teachers who do not know broadly what terms like "reform," "change," "innovation," "curriculum development," "programmed learning," and "new learning technology" mean. These terms are all meant to symbolize the kinds of changes which will enable the schools and teachers to achieve their objectives more fully and adequately. You may introduce change--by whatever name you call it--and it may not make any impact on the quality of education. On the other hand, a change in the curriculum or methods of teaching or administration might open new windows in the minds and hearts of students, make the work of schoolteachers more active and joyous, or reduce the headaches of the administrators.

A change by itself is not necessarily for the better, but many teachers try to salve their consciences by making some alterations in their practices in the hope that these changes will prove the beginning of a fruitful program of reform. We have tried many new educational experiments in India--as others have done in their countries--only to find that the net result has often been rather disappointing. We must discover the reasons for such failure.

Importance of Purposes

What does school reform include? When it fails, is it a failure of implementation or of imagination and vision? One would be inclined to say that it is both, and the respective importance of the two would depend on what we are trying to achieve through it. If we are primarily concerned with a change in the curriculum and methods, the mechanics of implementation are at fault. If, on the other hand, we are interested more in the reinterpretation of the deeper purposes of education and we fail to bring this about, then obviously it is failure of our vision. Yet any educator, with a proper understanding of his role, should be concerned with the whole process--neither mere instruction, nor mere training of the mind, but the education of the child's whole personality, which would cover curricula, methods, understanding of values and purposes, and the vital play of social institutions on the school. The school must become, in this enlarged context, not merely the transmitter of the existing pattern or patterns of culture but also, in a modest way, a creator of new values and a new pattern of culture. It should take upon itself the difficult but essential function of appraising existing culture, strengthening trends that are life-giving, and fighting against forces which repress freedom and the urges of humanism. While I recognize the importance of method and curricula, I am convinced that purposes are of basic importance in education and they must be defined with care, imagination, and a spirit of humanism--that is, not with reference to pedagogical consideration of a narrow technical nature nor in a kind of academic vacuum, but with reference to the needs and creative aspirations of life, both of the individual and of the community.

All this cannot be achieved at once. School reform should, therefore, be envisaged as a continuous and coherent process which involves a multipurpose approach toward the total education of personality. It would be necessary, of course, to pick out priorities for action, at particular points of time and in relation to the special circumstances of the school as a matter of tactics. Yet the teachers should have before them, as a body, a total picture of what they are trying to achieve. It is the comprehensiveness of the envisaged objective that is important, not the simultaneous implementation of the whole programme in view.

Obviously, the starting point for any effective improvement in schools must be an outstanding individual assisted by a group--even a small one--of committed and dedicated teachers, willing to work cooperatively for a commonly cherished goal. The kingpin in this process is often the dynamic and imaginative head of the institution, who can provide inspiring leadership for his colleagues and knit them into a genuine team. How are such teachers, one may ask, to become available for pioneering, trailblazing experiments? I can only point out that there is no single, magical recipe for mobilizing the best talent. Sometimes it is a single individual of drive and vision--like Tagore or Zakir Husain in India--who provides the attraction. Sometimes, it is a dedicated group of progressive teachers who initiate the experiment and draw others into it. However, it would be unfair and unreasonable to expect that even the best teachers will continue to work in a pioneering experiment indefinitely, unless the local or national educational authorities provide reasonably good conditions of work for them and unless society shows some appreciation of what they are doing.

In many countries where conditions of scarcity prevail, teachers often work in remote rural areas where there are few stimulating contacts, official or nonofficial, no books, no educational journals, little audio-visual equipment, and where the environing community is largely uneducated. The intellectual depression and isolation, which are the normal lot of such teachers, tend to make even the most promising of them lose their interest and the rest become part of a lifeless routine. Under such conditions, it becomes very difficult to initiate any creative experiment. And yet, if these teachers were left out, it would mean that experimentation would be confined to large cities and centres of urban population only.

The business of the imaginative educational leader is to leaven the whole mass in course of time, and not to concentrate entirely on institutions and regions which have a favourable climate for the purpose. My stress is on "entirely," for I do recognize that, to begin with, one may have to try new ideas and methods where they have a good chance of striking roots in the soil. Yet the other areas cannot be ignored. They have to be assisted so that they may also become favourable soil for the purpose.

To achieve this object, we have tried some measures in India--with limited success, I must confess--for example, improving the efficiency of the teacher training colleges so as to equip the teachers better professionally for their work, sending specially prepared literature in the form of brochures, folders, educational journals, etc., to schools in such areas in order to awaken and maintain the teachers' interest in educational change, to arrange visits by good teachers and educationists from other schools who may come into intimate personal contact with them. It may thus be possible to break through teacher apathy and isolation and let the wave length of new ideas take the comparatively backward schools within its purview.

Cooperation with Teachers

Educational reform, however, is an uphill task, and entails many disappointments, failures, and frustrations. It is necessary to devise ways and means of keeping up the morale of those working in different kinds of schools--where the educational atmosphere is congenial and where it is not, where the community is cooperative and where it may be indifferent or even hostile. We have to provide imaginative leaders, and administrators and supervisors with sympathy and vision, who will visit them frequently, encourage them to discuss their difficulties, suggest to them readings which will both instruct and inspire and thus break down loneliness of the mind wherever it exists. In many of the countries in our part of the world, this is a very serious hindrance, particularly in rural areas, in the professional growth of teachers.

New forces and movements have risen in recent years which make it necessary that, in addition to enlisting the cooperation of the teachers, we win over the active cooperation and willingness of the student community as well. Students can no longer be regarded--as we know to our edification--as passive clay in our hands which the skill and wisdom of the potter can mould into any form. They should be taken into confidence, and the objectives and purposes of reform should be explained to them in terms which they can understand. Thus students should be made active and, if possible, enthusiastic allies in what we are trying to do. There are areas of work in education, even at the school level, where their advice can profitably be sought. Newly emergent student protest movements will be considerably softened if such movements become a normal part of school and college administration and if students realize that they are equally involved in the process of their education.

Similarly, it is necessary to ensure the involvement of the community in any serious program of school reform. There was a time when teachers and educational authorities could afford to regard themselves as the sole arbiters of educational policy and measures, but educators must now take into account both the adults and the youth of the community. The need for this involvement arises because all educational reform must ultimately rest on a careful and well balanced assessment of the educational needs and social aspirations of society. Reform cannot be engineered in a social vacuum.

These needs, broadly speaking, are of two kinds. There are some needs which are basic to man as man, which stem from the very roots of human nature, from man's proper understanding of what the dignity of man implies, from his common urges, aspirations, feelings, and passions. Whether one lives in America or Russia or China or India or Arabia or Chile or New Zealand, there are many things which people share and which education must take into account. There are other needs which are closely related to a particular cultural or political system or geographical area. A comprehensive analysis and understanding of these dual needs are necessary in order to formulate suitable curricula and syllabi for any particular society.

It may be that, in the reconstruction of the curriculum or the syllabus, the specialized needs of a country may come first in point of time but, as I see it, priority in significance must be given to the common needs and aspirations of man as a citizen of the world. Why should not all our students realize, from the earliest stage of their education, that they are citizens of the world and only thereafter the citizens of a country, the residents of a state or a district or a village, so that their loyalties may be rightly oriented from the outset?

In the reconstruction of the curriculum a great deal of work has been going on all over the world. All that one can do here is to lay down general principles of policy to guide the process. This has, to my way of thinking, two components. First, we must decide what we can do to streamline the traditional subjects, coordinate them with one another and with life, so that they may be quickened into life and not remain what they have been over the centuries--passive stockpiles of information, some useful, a good deal outdated. Perhaps many of the progressive, pioneering educators may not quite agree with this assessment of the present situation of school curricula. But persons such as myself, who have worked at the ground level and have seen the conditions that prevail, will agree that this is true of a majority of schools all over the world.

Role of the School

The other component derives from the fact that our world is changing very, very fast; new knowledge is being created at a pace which staggers the imagination. My scientist friends tell me that knowledge in the field of science more than doubles in a decade. New technology is being developed continuously, creating new problems not only in its own field but also in social and economic relationships. This is, of course, happening at different speeds in different parts of the world but, slow or fast, the movement is in that direction. The crucial point of this unprecedented change, from the educational point of view, lies in the creation of these changed socio-economic relationships and the new problems that arise out of them.

If the school ignores these live problems and if school reform is not concerned with them, then the school will cease to have relevance to the

the world in which we are living. Thus, technological progress in the more advanced countries has not only enormously increased the material resources of these countries but has given man infinitely greater power over Nature; it has also opened bottomless pits for wasting resources destructively. The most obvious example of this, of course, is the criminal and suicidal race in nuclear armaments, which, added to uncontrolled, unplanned industrialization, is making the human environment more and more uncongenial and harmful to the life of man. Man's environment is spoiled through the pollution of air and water, which, in some countries, has now almost passed the limits of human tolerance; through the growth of the soulless metropolis and cosmopolis of enormous size, in which millions of nameless, faceless human beings congregate, who have forgotten what normal community life meant in the past and who have little contact with Nature from which all healthy life springs; and through the depletion of the countryside, which is being gradually sucked in by the growing urban menace. These and many other pressures and unhealthy factors, operating in modern life, have raised new problems of frustration, psychological tension, nervous and emotional breakdowns among the youths and the adults of the community, accompanied by a pitiable desire to seek unworthy forms of escape. There is, consequently, a tendency now to reject the good as well as the bad features of modern civilization.

All these problems clamour, often unheard, for the attention of the parents, educationists, and educational administrators. To the extent possible, the problems should be worked into the curriculum so that the new generation, emerging out of schools and colleges, will not grow up ignorant of what awaits them in the world of tomorrow or the day after, and so that they will be in a position to strengthen healthful public opinion on these issues. This will obviously involve throwing out of the curriculum much old cargo and replacing it with a new one relevant to the present needs. We can only do so if we carefully examine what we can leave out without serious detriment and what we should include in order to help students adjust creatively to their environment.

There is no way in which all, or even the most salient features of the new knowledge, in its most elementary form, could be sneaked into the curriculum of students. The emphasis, therefore, has to shift from mere accumulation of knowledge against a rainy examination day, to learning how to acquire knowledge as it becomes necessary; from how to stuff the memory with information, to how to train and develop intelligence and use it for interpreting knowledge. The cultivation of a lively curiosity, the eagerness to learn, the mind trained as a precision instrument are thus seen to be much more important than quantitative learning, and method as more important than content--particularly if content consists of passive information and "inert" ideas. So one of the most important functions of good teachers, working to bring about school reforms, is to raise questions, to set the mind wondering, to create opportunities in which the students may use the knowledge acquired for solving their own problems as well as the problems of others.

Means and Ends

In the educational systems of many countries, including the U.S.A. and India, there is often a confusion of priorities in the sense that means are given more importance than ends. No school reform that is wedded to the sharpening of tools, the improvement of methods and techniques, the devising of new teaching aids and apparatus, to the neglect of the basic objectives in whose service these tools are to be used, is really worthwhile. I have found, in many educationally progressive and affluent countries, too much of a tendency to concentrate on means. Not that the best educational thinkers are unconcerned about the basic objectives and purposes, but, when it comes to the devising of measures for actual school reform, the emphasis shifts to the sharpening of tools. It is idle to expect that, by doing with greater technical skill and expertise what we have been doing in the past, however inconsequential it may be, any fundamental reforms could be brought about! Unless we define our educational objectives more intelligently, more relevantly, and in more humane and universal terms and relate our means and techniques to these objectives integrally, all our wonderful machines and streamlined methods will be of little value.

Yet this cannot be achieved, as I have hinted, by merely tinkering with the curriculum or the methods of teaching, by introducing from time to time more science or new mathematics or more foreign languages in response to some immediate needs--or even by making radical changes in them, unless the changes are intelligently related to the longer range objectives of education.

I have stressed this point in order to make it clear that, for me, school reform has no limited, purely technical connotation. Subject to this provision, I recognize the importance of developing new techniques for education at all levels--activity methods of teaching and learning, improved audio-visual techniques, new devices of communication like radio, TV, films, use of computers, new language learning devices, new ways of designing curricula so as to break down artificial barriers between various school subjects and showing their relevance and relationship to contemporary life and the urges struggling to emerge out of it. One advantage of some of these devices is that they make it possible to utilize outstanding teachers--whose number is, alas, limited in all countries--for a much larger student audience than has been true through traditional means. All the potentialities of these media have not been fully explored and, whenever financial and other requisite facilities are available, it would be necessary to make fuller and more effective use of them.

It must be remembered, however, that the development of these media is at different stages in the various countries of the world. This development depends not only on the economic position of these countries, but is also related to their cultural and social conditions, the stage of their educational development, and the part that machines play in their general economy. In some countries, the development of media will have to be carried out on a very economical basis, minimizing the use of mechanical and electrically run devices and using local resources as much as possible. However, I would like to suggest that, even if some other countries have the resources to achieve the point of saturation, there would be wisdom in not trying to do so. It is possible to make the educational machinery--how shall I put it?--so machine-ridden that there will be little scope for initiative and resourcefulness on the part of teachers and the whole educational process will become a preplanned, rigidly directed, unchallenging routine. In our economically underdeveloped region, we have found that, while lack of resources is a great handicap in doing many things that we want to do, there is also a certain thrill and creative joy in working within the limitation of a scarcity economy and achieving worthwhile results, often using human ingenuity and resourcefulness to make do in place of mechanical devices and large financial resources.

We have to bear another caution in mind in the use of the various kinds of teaching machines and devices. In our preoccupation with them, we must remember that a most important aspect of our work is to make a deeper study of the psychology of child learning--that is, what happens when teachers and students confront each other in the classroom situation. Teaching apparatus, simple or sophisticated, may help, but we have to bear in mind that real education is what goes on between two persons--contact of a mind with a mind, of a spirit with a spirit. Indeed, without a better knowledge of this process, an attempt to introduce new technological systems could have a dehumanizing effect on education.

The Teacher-Student Relationship

In many countries of the East, there has been traditionally an intimate, personal relationship of great significance between the guru, that is, the teacher, and his students, whether one or many. This was in the past often a one-to-one relationship in which the student would become a member of the guru's family, live with him for several years, serve him with devotion, acquire knowledge at his feet, and receive education not only from books and through formal lessons but from the impact of the guru's personality, his sense of values, his philosophy of life. This practice is, of course, not possible now and we, in the East, may have overdone it. Yet in a process of educational improvement, we shall ignore its real significance only at our peril.

A good deal of the present student unrest in many countries, so far as it is due to academic causes, stems from a growing mechanization of the teacher-student relationship in the schools, the colleges, and the universities. When actual teaching is relegated to junior assistants and lecturers, and the professors and other senior members of the faculty remain largely preoccupied with their research and research publications, the students often remain for them a nameless, faceless crowd. This not only undermines the personal influence which the professors could have exercised, but also provides some justification for student protest movements. A depersonalization of relationship is bad in all human associations; in education, it is particularly out of place.

In an appraisal of what a healthy society requires, we must learn to distinguish between what it wants and what it needs. An individual, a group, or a society may want many things--bigger cars, more cigarettes, more cosmetics, more drugs, more armaments--and, therefore, may call for the training of the younger generation in producing these articles efficiently. It is not our business as teachers to accept necessarily what the customer decides he wants. If we were purveyors of ordinary consumer goods, there might be some justification for letting the consumer decide that point. But education does not belong to that category and it cannot be left to the uneducated whim of Everyman! We must make a comprehensive and socially sensitive survey of his real needs and adjust education accordingly. Let me make it clear that I am not advocating that an authoritarian regime should decide the total pattern of education and the particular niche in which each individual is to be fitted. I am entirely opposed to such an approach. In the formulation of educational objectives and policies, enlightened nonofficial public opinion as well as the government should be involved, and there should be open public discussion of the issues. At the implementation level, there is need for close cooperation and consultation between the teachers and the local community.

In order to initiate a well thought out, long-range programme of school reform, it is necessary to work out designs of pioneering educational experiments and organize experimental institutions where new approaches to curricula, syllabi, and methods of teaching may be tried out--schools like the former Dewey School in Chicago, the Tagore School in Bengal, the Zakir Husain School at the Jamia Millia in Delhi, Vasconcello's New School in Belgium, the Oundle Public School in England, to name a few schools at random. One of the most difficult things in improving schools is to fight against the rigid traditionalism, the status quo mind, the timid adherence to routine which characterize the normal run of teachers all over the world. They resist, they are conditioned to resist, change; and this is true in spite of all that one hears of the changes coming over the educational systems. In the U.S.A., when the Eight-Year Study was being conducted and teachers were told that they were free to work out new ideas, many of them frankly confessed, at least in the early stages, that they were "frightened of freedom." In my own country, desirable changes often remain confined mainly to certain progressive schools, while the majority bow their heads, as it were, "before the storm and let the thundering legions pass!" Even of a great university like Cambridge, it has been said, by one of its distinguished teachers, that it takes about 25 years for any important measure of reform to go through the various consultative committees and authorities concerned and, by that time, the reform is out of date and it is time to think of another! Changes do not come about easily in the educational world.

When I speak of changes, I am not referring to trivial changes but those which are significant and require a repatterning of teachers' basic attitudes and the cultivation of new insights on their part. So far as superficial changes are concerned, any self-complacent administrator can issue an order and take the unction to his soul that the changes prescribed have been carried out, if the teachers go through certain motions of doing things. Further, the teaching faculty should not be lulled into complacency just by introducing certain changes in the school program. It is not the change that is important, but its effect on the children and youth. Has it succeeded in giving them a clearer view of the world in which they are living, in teaching them better ways of dealing with new situations, academic and social, that they may come across, in integrating their knowledge into their life? Teachers should be sensitively observant of the effect of the changes on the student's mind and personality and, as a faculty, they should work to develop ways of measuring and assessing their impact. Otherwise, the change may deceive not only the administrator, but even the teachers themselves, into believing that the purpose has been achieved.

It is unwise to imagine that anything really worthwhile can be accomplished either easily or quickly. In effecting educational reform, teachers should not be treated merely as part of the implementing machinery. They have to be actively involved at all stages--planning at the macro and micro levels, assessing the draft plans, working out effective techniques of work, and finally participating in the actual process of implementation. This does not mean that every teacher is capable of making a valuable contribution at all these stages, but it will be good for them to have the feeling that they are, or can become, active partners in the process, that they have the requisite opportunity, if they will care to make use of it.

Approach to Reform

What would be the right methodology and approach to reform in the educational system? As I see it, there are two ways of initiating reform. One can either impose such reform from above or from outside--imposition by the government, by political groups, by the education department authorities, by the parents, or even by the students, of the new phenomenon that has developed recently. This is by no means the best approach, because its center of gravity falls outside the base of support. The motivation does not come from the teacher, who is the main agent in the process, but from various other social groups. They are all, of course, involved in the process but naturally they have their own special purposes to promote.

We cannot rule out altogether initiation that does not come from teachers. It has its limited usefulness, particularly in special circumstances; for instance, when the teaching faculty is passive or indifferent, or when there are important matters of policy which require a certain measure of national consensus which can only be arranged under the auspices of the government, or when the pressure of the local community is needed to make the teachers conscious of the community's special needs. Outside initiation can be useful, provided the teachers gradually acquire the capacity to welcome and support all healthy currents of thought and opinion coming from outside, and also have the courage to resist whatever is obscuring or narrow-minded in them. I know this is a difficult condition to impose, but without courageous and discerning teachers, no worthwhile changes can be introduced. If we think such teachers will not be forthcoming at all, we might as well give up the effort!

The alternative approach is to make the teachers the starting point of reform, and through training, refresher courses, stimulating contacts, and participation in experiments, inspire them with new ideas and practices and improve their competence and understanding of educational purposes. In this case, the results are likely to be more abiding and rewarding. Through such a process, reform strikes its roots deep in the educational soil and does not need constant guiding from outside. It becomes self-directed.

Does that mean that these other agencies to which I have referred have no important role to play? No, they have a vital role, but it is mainly concerned with the creation of favourable conditions in which teachers can work with maximum efficiency. The supervisors and administrators must provide for proper freedom, creativity, and initiative; the department of education should help schools to organize experiments and arrange effective clearinghouses for information and ideas. Again, all of them can show in their respective ways due appreciation of good work wherever it is done--an easy enough thing to do in all conscience, but I have often found educational authorities less than generous in this matter! A good man and a good worker is God's greatest gift. To honour such a man is to honour ourselves, our common humanity. And there are many ways in which befitting public recognition can be accorded. In India, for instance, every year the

President of the Republic gives National Awards to about 100 outstanding teachers from primary and secondary schools.

Finally, it is the joint responsibility of all these agencies to provide necessary funds and see to it that no really good work is allowed to languish or suffer for want of funds. While educational authorities all over the world deny that they have as many resources as they need, affluent nations can hardly realize how, in many countries with scarcity economies, education has to subsist on a shoestring budget. Money is essential and, if this is recognized, it can be spared from other comparatively less important or wasteful categories of expenditure, provided we do not forget that money cannot by itself improve education. In the final analysis, it is the men and women of ability, imagination, good will, and social conscience who can bring about such improvement.

When we have passed through the stage of trying out new and creative methods of education successfully in selected schools, the next problem will be to put them across to hundreds of thousands of schools and give millions of children the benefit of such methods. Here the pressure of quantity is always apt to defeat quality and, in the process of transmission, the new approaches become excessively watered down. However, there are some precautions which may help in the successful transfer of experience from the selected schools. First, arrangements should be made for regular visits of teachers from other schools to these selected schools, to observe their functioning, work in cooperation with their teachers, prepare necessary curricular and illustrative materials, and study methods of more lively presentation of significant life-related content. Occasionally, gifted teachers from these schools should visit schools in their neighborhood and give the benefit of their experience and new insights to their colleagues.

We have tried out in India, with Ford Foundation assistance, a fairly well articulated scheme under which the primary and secondary teachers training colleges were made responsible for the academic supervision and betterment of schools in their neighborhood. They were given some additional staff and library conveyance facilities for the purpose, and programmes were drawn up which made a two-way traffic possible between them. The success of the experiment varied from area to area, depending on the quality of the college faculty and the response of the schools but, on the whole, it was a worthwhile venture.

At this stage, it is necessary, I repeat, to make sure that there is active cooperation and understanding among the students, the parents, the teachers, the supervisors, and the administrators so that they may all pull in the same direction and not work at cross purposes. Great patience, good will, devotion, enthusiasm, and wisdom are needed to overcome the obstacles that will necessarily come in the way. The schools should also have the freedom, if they can exercise it, to adjust the experiment to their own special conditions, instead of following a given pattern mechanically. Honest differences of opinion should never be ruled out, nor should the initiative of the men on the spot be curtailed. There must be room in all significant creative activity for dissent and a readiness on the part of the majority of the concerned authorities to give it due consideration.

In many of the countries with which I am familiar, there is too much of the straitjacket approach, which kills creativity and restricts freedom. And no radical school reform is possible if teachers are denied creativity and freedom. Many more teachers than the administrators are usually prepared to recognize are, if given the necessary conditions of work, capable of growing into fine teachers. It is undesirable to have any prison walls in the educational system which only persons of exceptional vision--a Dewey or a Tagore--are sometimes able to break through. We should have a built-in possibility for every teacher with the necessary ability and enthusiasm to be able to make a contribution.

For Survival with Dignity

School reform is even more than a matter of designing a lively and meaningful curriculum, of working out new methods of teaching, and of developing an alert and sensitive mind. It also involves the question of cultivating, in the students, attitudes and ideals which we consider worthy and whose significance they can appreciate. This is not merely the age-old question of training intellect as well as character--that has always been with us and is part of the warp and woof of all education. I am thinking of the special qualities necessary here and now in order to ensure the survival of man with dignity in his new and challenging and heartbreaking environment. How shall I define and specify these qualities? Perhaps I can do so best by saying that they belong to the value-area of love, with which are associated charity, compassion, social sensitivity, urge for peace. Without this supreme quality of love, life can have no savour, man can build no worthwhile culture, and the teacher has no great purpose to work for. All true progress, a French writer has remarked, is progress in charity, everything else being secondary to it. This is precisely the quality which is in short supply in the world today--in spite of the impressive advances that we have made in the social services and, to some extent, in the field of international assistance.

Can the school make any contribution to this situation? I would submit, in all humility, that a school system which does not concern itself with the question of right attitudes and values, and school reform which passes this area by, are nothing but an exercise in futility or worse, and those who disregard this basic question do not really know what they are talking about. School reform must aim at bringing about a reorientation of teachers' minds, emotions, and values and, through them, produce a revolution in the thinking and feeling of students so that they learn to prize creative happiness over possessive happiness, cooperation above competitive success, service above exploitation, so that they learn to realize that all men are brothers and no human being should be a stranger to another, that their weal and woe are one and inseparable.

The contemporary world offers the child numerous opportunities as well as numerous risks. From an early age, he has to be trained to seize opportunities of fulfillment and to recognize the signs of danger. The latter cannot be entirely or perhaps even partially eliminated. The world is too much with us--with its violence and fanaticism, its irresistible media of mass propaganda, its heartrending juxtaposition of riches and poverty, its numerous injustices, its temptation to seek success and money in easy and unscrupulous ways. We cannot, and should not, try (even if it were possible) to guard the students from knowing about them by keeping them in an ivory tower, for that would make their transition from the world of school to the outside world more difficult and risky. There is certainly the danger in this approach that some adolescents may stray away from what we consider the path of reason, sanity, and decency and may fall under undesirable influences.

The teacher is not God who can guarantee against that possibility; even God, as far as I can judge, does not do so. Yet the danger will be greater if the students are kept in cotton wool and do not see the world as it is but only through the beautiful and deceptive hues of the rainbow. It is essential for the teacher to cultivate love and patience--love to save himself and the students from frustration and pessimism, and patience to enable him to continue serving the students, however unresponsive or unattractive a particular individual may be, and however trying the circumstances in which he has to work--controlling his anger, his heartaches, his headaches, and the attacks of cynicism to which he may quite conceivably be exposed.

Alice Miel

Toward a World Community of Educators: Unity with Diversity

The 1970 World Conference on Education was designed to open doors to collaboration among educators around the globe, collaboration that would be personalized and at the same time systematic. The program planners were well aware that it is the lot of busy people to become immersed in the day-to-day realities of job and family immediately upon their return from a conference. Thus, even though individuals leave a conference site full of resolutions to carry out back home, those resolutions somehow lose their power as time and distance intervene.

Nevertheless, the sponsoring Commission believed that whatever momentum was to be achieved on the Monterey Peninsula need not and should not be lost. Therefore, the conference was structured to produce plans for keeping participants in touch with one another afterward in order to ensure some sort of future for the kind of colleagueship developed at Asilomar.

In framing the topic, "Toward a World Community of Educators: Unity with Diversity," the organizers had nothing so ambitious in mind as a new international organization in education, although at some point such an organization for those with special interest in curriculum and instruction might prove useful. They did hope, however, that all might leave Asilomar with the feeling of being members of a newly forming community, a world community of educators. That community is conceived not as a well-defined goal ever to be reached but as a direction in which to move, with size and form left open to the future.

In naming the desired community of educators, the word world is selected in preference to international, since the focus is not primarily on achieving better relations between two or more nations but on common responsibilities for the education of all the youth of the world.

The word community is employed in the sense of a group of people with joint character or likeness, in this case a common profession or calling, who are in communication with one another. The communication is of a very special type, for it takes place, often at a long distance, between people who are both giving and receiving. They are committed to a kind of listening (or reading) that takes account of different frames of reference and different meanings for the same word, not so much to reach agreement as to have the benefit of more vantage points from which to view a problem, a condition, a belief, an idea. They are committed to a kind of expression which tries to transcend ethnocentric and egocentric barriers in genuine attempts to reach the mind and heart of another.

The kind of community envisioned is one where individual relates to individual, and thus it differs from the World Confederation of Organizations of the Teaching Profession, in which constituents are national organizations belonging to a super-organization. (This observation is not intended to question the value of WCOTP but rather to make a distinction between two differing approaches to worldwide cooperation among educators.)

The word *educators* is chosen because the term includes all professionals--primary or secondary school teachers, college professors, school administrators, or supervisors--who are employed in some educational institution, generally a public or private school or university.

For purposes of the Asilomar conference, there was attempt to assemble those workers in the profession who are likely to be *influential with respect to the quality of the curriculum and instruction* in the schools and universities of the world, "in order to achieve what has been called the multiplier effect." Given the nature of the sponsoring organization, the Association for Supervision and Curriculum Development, it seemed appropriate to *start* with a nucleus of specialists in curriculum and instruction. This does not mean, however, that a world community of educators will not encompass those with other specialties and interests, such as securing financial support for education, providing and maintaining the school plant, and the like.

To Broaden Loyalties

The nucleus of world educators gathered at Asilomar will not want to remain isolated either from fellow curricular and instructional workers or from others within the profession, for in *unity* there is strength. The strength comes from pooling wisdom and efforts to render a higher quality of service as members of the same profession. The strength comes also from a widening of the boundaries of loyalty.

In the context of World War II, Kenneth Benne examined the problem facing the educator when the particular local community he represents is divided by conflicting values or is united in urging values inimical to the broad and pervasive value system of the broader society.[1] In essence, the advice he gave was to perform the educational tasks of a limited community while seeking always to serve a wider community in such a way as to include eventually all of mankind. A community of such scope is the only community that can reasonably command a man's full devotion and loyalty.

The need of the educator to broaden his own loyalties and to help the younger and older members of his geographic community to do likewise means that members of a world community of educators can be effective only if they relate to other communities of discourse and to people in all walks of life. As William Sayres put it, we need to "move with greater cultural sensitivity within as well as across national boundaries."[2]

While an underlying basis for unity exists among members of the same profession, unity is a quality of community that must be actively and continually sought. Unity has been described as the *price of diversity*. If we cherish variety as a necessary condition of an interesting and challenging life, we perforce must build sufficient unity to protect individuals and subgroups in their right and opportunity to be different.

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[1] Kenneth Benne. *A Conception of Authority*. Teachers College, Columbia University Contributions to Education, No. 895. New York: Teachers College Press, 1943.

[2] William C. Sayres. From an unpublished speech on "Developing Cross-national Thinking About Curriculum: A Search for Common Ground." Twenty-third Annual ASCD Conference, Atlantic City, New Jersey, March 1968.

Unity in a community of educators may come from agreeing on humane values to be cherished and on overarching purposes and directions in schooling to be pursued. Unity is promoted through sharpening our common tool, the language of the profession, as we develop shared meanings for precise terms needed to discriminate among ideas. It is promoted, also, through maintaining friendly interpersonal relations, through being mutually helpful by communicating problems met and best ideas currently possessed, and through collaborating in advancing the knowledge of the profession.

While unity is a quality to be sought, diversity, on the contrary, is a phenomenon that is always with us, something to be valued as a source of change without which life, as well as education, would stagnate. This is not to say that a particular difference in itself is life-enhancing. Some differences are trivial and it matters not whether they are preserved or lost. (For example, of what importance is the difference between the two spellings of labour and labor?) Some differences, such as malnourished bodies or brutal customs like slavery, both of which are still to be found in our world, are ugly and life-obstructing. Such differences call for strong measures to bring them to an end. But the generic idea of diversity is one to be utilized constructively, not denied, suppressed, or obliterated in a capricious fashion.

To Study and Exchange

A world community of educators could have as one of its functions the study and exchange of variations in culture and education that might be useful in other settings. In fact, it was one of the purposes of the Asilomar conference to help educators in both industrialized and developing nations to learn from one another. Educators in developing nations who are facing new forms of old problems and who are inventing fresh, innovative solutions can make a special contribution to those embedded in arrangements and habits that have become more outmoded than they have realized.

Given the ability of the human being to produce variations on any theme, there is no more danger that such exchange will produce a homogenized world system of education than that cultural exchange by mass media will produce a completely homogenized world culture. On the other hand, there is danger that thoughtless borrowing from one another may produce more of a sterile kind of uniformity than we need to have in the schools of the world. Therefore, each member of the world community seeing value in the idea of another, and wishing to appropriate the idea for use in his situation, will want to take care to make any modifications necessary for it to fit into a new context. That is one way in which a useful amount and kind of diversity can be maintained.

It is instructive to consider some of the types of diversity that may be worth preserving both within a nation and between nations. An important one is the way time is viewed by different individuals and groups. An educator from the U.S.A. who had worked with the Trukese in the South Pacific offered this contrast in conceptions of time:

> The American generally places a high value on expediting decisions. Time and efficiency are intimately related in his mind. The Trukese does not generally share this value. In decision

making, he places a high value on arriving at a consensus of opinion. Because of the intimacy of island living, where people are forced by kinship ties and clan loyalty to cooperate, dissension and individual opinion are to be avoided. Therefore, the American may view the Trukese as inefficient and indecisive and the Trukese may view the American as impatient and dictatorial.[3]

Here is a case where each of two views can be useful. Sometimes money, if not human lives, may be lost by treating time as if it were a luxury; at other times the clock is a needlessly demanding master.

Other points of diversity, within as well as between nations, where people might profit from finding value in seemingly opposing views are: (a) difference in respect for youth and for age; (b) difference in value seen in scholarship developed through advanced formal education and in wisdom won from dealing with the practical world; (c) difference in reliance on the simple *either-or* logic valued in Western culture as opposed to the *paradox* used greatly in philosophy and literature in Asia;[4] and (d) difference in regard for formal, even ceremonial matters.[5]

There is one type of difference about which little can be done except to recognize its existence and the real barrier to communication and cooperation among educators that this difference, if not understood, could cause. This is a growing fragmentation of the world pointed out by Zbigniew Brzezinski, Professor of Public Law and Government at Columbia University in New York City. Brzezinski sees three types of societies existing as contemporaries: one primarily rural and traditional, only now beginning to industrialize; another shaped by the impact of a highly developed industrial process on social, economic, and political life; a third, which he calls technetronic, a post-industrial type in which computers and communications are shaping more and more the way of life. In the last named, the social dilemmas are of leisure, well-being, automation, alienation, purpose, and meaning.[6]

Since even valuable differences can divide the educators of the world into ineffectual groupings, it is important to keep unity and diversity in some sort of useful balance. Several questions raised in another context seem appropriate here: "What kinds and amounts of difference do we need to protect the living nature of (a particular) framework? How much uniqueness can we tolerate without encouraging people to create island-like living space which lacks sufficient ways for communicating across separateness?" And again, "How much likeness does a ... society need for the defining of a framework? How much conformity can it tolerate without encouraging people to create life-space borders that are narrow and confining--dangerous really to the integrity of the society's design?"[7] These are questions which a viable community of educators will have to answer for itself.

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[3] Unpublished manuscript, 1967.

[4] This point is presented in: James L. Henderson. *Education for World Understanding*. Oxford: Pergamon Press, 1968. p. 6.

[5] On this point, a further contrast between Americans and Trukese is illuminating. "To an American, informality of manner is usually valued as part of his egalitarian tradition. Physical contact, joking, and laxity in the civilities often occur; it is part, perhaps, of conveying friendliness to associates. To the Trukese it can be insulting, implying that the American does not place human relationships and serious occasions in high regard. Lengthy speeches and elaborate feast preparations give prestige to events that sometimes seem extremely boring to the American. However, failure to recognize and understand the importance of formalism in Trukese custom is to commit a serious blunder."

[6] Analysis presented at a conference on "Education for Living in a 'Global Village,'" sponsored in New York City in 1968 by the ASCD Commission on International Cooperation in Education and the New York Chapter of the World Education Fellowship. A similar analysis was published in 1967 as one of a series of occasional papers by the School of International Affairs, Columbia University, under the title of "America in the Technetronic Age."

To Become Visible

Many have had the experience of having a new window opened on the world through viewing a painting or a film, reading a poem or other piece of literature, seeing the performance of a mime or a dancer or a dramatic actor, or hearing a piece of music. For those participating, the Asilomar conference apparently had the effect of opening a new window with which to view education and fellow educators in other nations. Perhaps the experience had enough length and intensity to overcome the tendency of people to be invisible to each other as Maxine Greene has described it:

> Our vision is often too poor to permit us to see through the Frenchness of a French person, the Koreanness of a Korean person. We may appreciate the Frenchness and the Koreanness. We may be eager to learn all there is to learn about what accounts for such qualities--what values, what cultural mores, what kind of education, what early childhood experiences. We may say that beneath all these we recognize a fellow-creature--in abstracto ... but this can ... be still another way of imposing invisibility.[8]

At this conference a number of persons probably had the different experience which Greene also described:

> ... now and then ... one (face among a blur of faces) becomes visible to us with a shocking clarity and immediacy, and we suddenly recognize a person there, an individual ... and we know, somehow, it is with him as it is with each of us.[9]

At any rate, one group leader at Asilomar declared, "I can't write the word foreigner any longer."

Further encounters such as those at Asilomar are to be hoped for among a growing body of world educators. Reports of working parties

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[7] Alice Miel and Peggy Brogan. More Than Social Studies: A View of Social Learning in the Elementary School. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957. p. 7.

[8] Maxine Greene. "International Understanding Through the Arts." Paper presented in 1968 at the ASCD conference on "Education for Living in a 'Global Village.'" Later published in: Maxine Greene. "The Arts in a Global Village." Educational Leadership 26 (5): 439-46; February 1969.

[9] Ibid.

(pages 89-131) show some of the definite plans made for follow-up: newsletters; cross-national research; development of proposals, models, and brochures; and creation of regional centers, to name a few.

The fact that so many came to Asilomar at such sacrifice of time, energy, and money, worked so hard, and produced so much shows that we can find in our profession numerous persons with whom it is a privilege to be associated in a world community of educators. In keeping with the concept of unity with diversity we will be united in a commitment somehow to improve education wherever we work, but we may differ in what we consider improvement and in how to bring it about. By pooling our strengths and involving students and others in our communities, we can make a strong impact on the schools and universities of the world and influence them for the better. We owe nothing less to the young people of the world.

PART TWO

Working Party Reports

Included in this document are reports of the conference working parties, since a substantial portion of the time at Asilomar was given to deliberations on educational matters which cut across national boundaries. It was intended that the working parties share insights on common interests and develop action proposals which might be implemented when the participants returned to their own nations.

Each group developed a personality of its own and each approached its task in a different way. An attempt is made, in the somewhat abbreviated reports, to capture the style of the group, the essence of its discussion, and the plans for further work.

Designing Curriculum and Instruction for the Schools of the Future

Section A

Reported by VERNON E. ANDERSON, Chairman

Out of the early discussion, the group developed plans to work on two general phases of designing a curriculum: (a) kinds of curriculum appropriate for the world of the future and (b) how to achieve desired changes. This was a working-discussion group that viewed films, read materials, developed plans, and discussed both procedures and issues pertinent to the 12 countries represented.

Plan of Work

The working plans included a 10-minute stimulator for each session and a reactor from a different country. These plans are presented below. All were geared to the following four questions:

1. How do we achieve better human relations and world peace through curriculum reforms?

2. What are the goals on the basis of which children will contribute to the peace of the world?

3. Does change in education really come from within the system, or are factors outside of it the real promoters of change?

4. Can we establish common universals related to the curriculum regardless of national structure?

March 7

Designing a curriculum
Stimulator: Joe Dionne, U.S.A.
Reactor: Joshua Akintola, Nigeria

March 8

Efforts Kenya has made and hopes to make through the new curriculum: a united nation, harmonious unity, and skills and attitudes to enable youth to contribute to the needs and aspirations of the nation
Stimulator: Joseph Lijembe, Kenya
Reactor: Maria Susana Ponte de Vasconcelos, Brazil

March 9

A case study of a curriculum developed for ghetto schools that was not a success
Stimulator: Jim Conkey, U.S.A.
Reactor: Wilfred Wees, Canada

March 11

Development of a curriculum which deals with human behavior: "Man: A Course of Study"
Stimulator: Frances Link, U.S.A.
Reactor: Rev. Michael Petty, Argentina

A proposal for an international curriculum of man
Stimulator: David Wolsk, Denmark
Reactor: John Dugdale, Australia

March 12

A curriculum for developing countries
Stimulators: Marta Ziegenhagen, Colombia, and James Macdonald, U.S.A.
Reactor: George Bishop, UNESCO

Some Concepts That Evolved

1. To accept a practice from another nation may be dysfunctional.

2. Working toward an ideal curriculum that stresses world cooperation means that one should have freedom to plan.

3. Man must understand himself and his motives in order to work for better human relations and world peace.

4. Cooperation among developing countries for publication of common materials for schools was proposed, especially among nations that use a common language in which little instructional material is available.

5. There may be a conflict between growing feelings of nationalism and international objectives in a new nation.

6. Developing nations have expertise that can be utilized by highly developed nations.

7. Perhaps the developed nations have "overdeveloped" to such a point (causing hazardous pollution problems, for example) that they are, in these respects, underdeveloped nations.

8. New processes and attitudes must be effected globally in order to cope with the future.

9. In planning for curriculum change, a strategy needs to be developed for changes throughout the system: administration, curriculum, instruction, and maintenance.

Possibilities for Future Cooperation and Follow-up[1]

1. Developed nations should bring more educators from developing nations to explore mutual aspirations.

2. Meetings of specialized groups of educators such as social scientists, mathematicians, and others should be held on an international basis.

3. Informal international newsletters involving current practices should be published.

4. Mechanics of exchanging print and nonprint materials among participants should be considered.

5. Mechanics of school-to-school interchange of information and staff should be explored.

6. A consortium of international universities involved in world education should be investigated.

7. Ways of involving students in future international meetings should be explored.

8. The thrust of comparative studies should be in the direction of a greater humanism as opposed to statistical data.

Participants (12 nations)

Vernon E. Anderson, chairman, Joseph L. Dionne, co-chairman, J. M. Akintola, Gerhard M. Berge, G. D. Bishop, Gwyn Brownlee, James V. A. Conkey, G. H. Deutschlander, John H. Dugdale, Donald H. Eichhorn, Mohammed Ali El-Erian, Joseph Lijembe, Frances Link, Geke Linker, Russell Mosely, Suwat Niyamkar, Rev. Michael Petty, Margarita Quijano, Maria Susana Ponte de Vasconcelos, Wilfred R. Wees.

Designing Curriculum and Instruction for the Schools of the Future

Section B

Reported by ENOKA H. RUKARE, Chairman

What were the highlights of this working party? One way of describing them is to identify the topics around which most of our discussions tended to focus.

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[1] Recommendations addressed to ASCD in this and other working party reports have been routed directly to the Executive Council of that organization and are not included in the *Report*.

Individual Expectations and Perceptions

We spent the first session getting to know one another. Each group member briefly introduced himself and discussed his expectations and perceptions of the conference. The breadth and scope of the perceptions and expectations are reflected in the diversity of nations and states from which group members came: Canada, Colombia, England, Ethiopia, Guyana, India, Sierra Leone, Uganda, Vietnam, and the United States of America. Members from the last nation represented a good cross-section of the states.

Meaning of Key Terms

Since the main focus of our working party was "Curriculum Designing in Developing Nations," it seemed necessary to get some general idea as to how we were going to use the key terms, "curriculum," "curriculum designing," and "developing nations." Our main concern was not to search for any specific definitions but, rather, to be aware of the various shades of meaning associated with the terms.

Curriculum. We noted that in some countries the concept of curriculum was narrowly used to denote lists of subjects to be taught in schools or simply the content of what is "learned" and/or "taught." The general view of the group was that an attempt should be made to broaden the concept of curriculum to embrace some of the following:

1. Purposes, aims, objectives based on
   --the needs of society
   --the needs of individual children

2. Instructional materials

3. Instructional personnel

4. Environmental factors (e.g., time, space).

Curriculum designing. With regard to "curriculum designing," one member of the group gave the following report:

> Our group has come to understand more fully what conditions must be taken into account in designing curricula for developing countries. While these conditions were never given the unanimous endorsement of the group, they have been drawn from the many suggestions and proposals made as those which appear to be most appropriate.
>
> Certainly, the first consideration should be the demands and expectations which the particular nation and culture place upon the schools. Are the national political and economic goals universal literacy, more trained technicians, better health and nutrition, a more productive agricultural program, or a highly educated elite? Which goals have the highest priority and what combination does the national government support? Of equal importance are the differences among the various subcultures and their expectations and priorities.

> A second consideration is the extent of commitment, not in money alone, but in relation to other national priorities. Financial support will affect the nature and extent of materials, the size of classes, the length and quality of teacher training, and the salaries of teachers in relation to those of other public servants.
>
> A third consideration is an understanding of the learners. How much do we know about them? How do they learn most effectively? How do individuals differ in patterns of learning and behavior? If the culturally accepted pattern has been rote learning, should the pattern be broken? If so, what methods are most likely to be effective?
>
> Regardless of the conditions already referred to, any effective curriculum design must take into account the different roles played by ministry officials, headmasters, supervisors or inspectors, and teachers. Quite obviously, the most important role is played by the teacher. But what he is encouraged to do or permitted to do is frequently conditioned by those persons who act as gate keepers. Therefore, it seems critical to any curriculum design that some strategy be developed and approved involving continuous discourse and education of all persons involved in the total enterprise.
>
> Finally, as we think about curriculum design, it seems to us important that many ways of involving parents and other members of the community be explored at the school and classroom level. One of the reasons for the disaffection of youth in the developed countries is lack of any relationship between the school and what is happening outside. In less developed countries, children are not as far removed from the real world. This relationship is precious and should be preserved. Ways must be found of "dignifying" the talents of many "illiterate" but wise and skillful persons as being as truly educational as more bookish pursuits.

Another member of the group gave special emphasis to "curriculum design" as a guide to teachers. She said:

> Teachers who are usually busy with daily planning for classroom teaching need general guidelines that will help them select wisely to meet their pupils' needs. The systems analysis design can provide a model that helps teachers, parents, and students devise a curriculum that develops the objectives agreed upon. The systems analysis model can assist curriculum workers in identifying meaningful objectives and learning activities that contribute to the accomplishment of these objectives. The model requires teachers and supervisors to think logically about the purposes of their teaching and selection of instructional experiences.

Who Should Make Curriculum Decisions?

The group spent some time discussing the issue of who should be involved in curriculum decision making and at what level. The following report from a member of the group sums up what was generally agreed upon. She wrote:

> Before trying to answer the question of who should make curriculum decisions, the group examined the question of who does make curriculum decisions in the various nations represented by the members. It appeared that curriculum decisions are being made at three general levels: (a) national or state, (b) local or school system, and (c) classroom or individual school. Discussion suggested that, according to circumstances prevailing, policies assigned major curriculum decisions to one of these levels more than to either of the other two.
>
> Group members agreed that no matter where the authority for making curriculum decisions lies, it is the teacher, in fact, who decides the curriculum for the learners who are his responsibility. It seemed to us, therefore, that ideally the teacher should be recognized as the person who should make curriculum decisions based on his knowledge of the macrocosm of sociology, psychology, and the content fields, as well as the microcosm of the classroom, the individual learner, and the activities and experiences which will benefit the learner best. Thus, other levels of curriculum design and development would focus on providing for and facilitating teacher decision making in every way possible; for example, teacher education, provision of a variety of materials from which the teacher can select, and dissemination of research results to teachers. In this way, the teacher would be assisted in improving the curriculum decisions which he now makes.

Evaluation of Curricula and Curriculum Designs

After discussing and analysing the characteristics of a model on curriculum designing which had been prepared by one member of the group, we devoted the last two sessions to analysis of the assumptions which are normally reflected in the current curricula and curriculum guides. The group felt that very often the process of evaluation is devoted almost exclusively to the analysis of the characteristics of curriculum designs as such. Members expressed strong views on the urgent need to question seriously the basic assumptions on which the school as an "educational institution" is based. Members questioned the whole concept of "school education" in the developing nations where the formal "school" is an exotic institution. We discussed at some length the validity of the assumption that "literacy" is or need be an exclusive yardstick for being educated. If there are "illiterates" who have understandings and skills worth preserving, how should these educated illiterates be involved in the determination and implementation of a broader concept of education that might be developed in the future community schools of the developing nations?

These are questions for which no final answers were available and around which further dialogue between individual members of the group ought to continue after the formal closure of the Asilomar conference.

Participants (12 nations)

Enoka Rukare, chairman, Marta Arango Ziegenhagen, co-chairman, M. Kazim Bacchus, Mary Antoinette Brown, Thuy-Hong Bui, Geoffrey Caston, Carol Cole, Yolanda J. Delgado, Berhanu Duressa, J. Bernard Everett, Lucille Gansberg, Naomi Hersom, Virgil M. Howes, Virginia M. Macagnoni, John McGill, Dorothy J. Nelson, Alfred John Singh, Oteng Sutisna, Elizabeth E. Thompson, Herbert B. Wilson.

Designing Curriculum and Instruction for the Schools of the Future

Section C

Reported by DOROTHY DREISBACH, Recorder

March 6

After each member identified himself and described his responsibility, there was a general discussion as to topics the group wished to pursue. Various participants mentioned these concerns:

- Goals for schools of the future
- Preparation for a world society
- Social indicators influencing curriculum
- Effect of teacher training, research, practice, and in-service education on implementation
- Innovations involving school organization, nongraded primary, team teaching, differentiated staffing
- Influence of individual differences on curriculum design.

March 7

Much time was spent discussing the importance of establishing the necessary climate for developing and changing the curriculum. Several members related that their school leaders felt educators needed some experience in "Personal Development" and "Human Potential" programs to prepare them for welcoming change and coping with it. It was believed that when the educators were free to function at their fullest emotional and intellectual capacity, they were better able to improve their methods of instruction and to implement the curriculum. The teachers also would be more willing to free children to be happy, creative, self-directed, responsible, knowledgeable, and sensitive about people in their own and other nations. The teachers would become facilitators of learning rather than dispensers of information. This approach could be a preventative and/or a therapeutic one. It was definitely felt that open communication among all involved persons was a prerequisite to curriculum planning and implementation.

The afternoon session was devoted to a presentation on "Guided Self-Analysis for Professional Development." This technique showed some promise for curriculum implementation and evaluation.

March 8

The topic which captured the greatest interest and reaction was the significance of an effective language arts program in the curriculum of tomorrow. Related to this was the need for pupils to be more skillful in conceptualization. Some time was spent in discussing the place of foreign language in schools of the future; also the desirability of having an international language. It was agreed that human understanding was the most appropriate universal language for tomorrow's curriculum.

March 9

"Who designs the curriculum?" was the question proposed for discussion. It was noted that curriculum specialists, administrators, teachers, students, parents, and members in the community should be involved in varying degrees. This could mean that there might be three levels working together--the societal level, the institutional level, and the instructional level.

Another way to approach an answer to the question is to suggest that the four facets to be considered are visionary, designing, operating, and evaluating.

March 11

Much of the discussion dealt with strategy for change. It was noted that curriculum change involves a change in people, and it can move only as fast as the teachers are committed, trained, and given the necessary teaching materials. Other factors to be considered are the position in the social structure of the change agent and the attitude of the community. Members of the group described how change was brought about in various curriculum areas. It was evident that the type of strategy used was based on the predictability of success and acceptance in a specific school system or nation.

March 12

There was a brief but searching discussion of establishing a basis for integration of the curriculum. One possibility might be to move away from different subjects toward a multidisciplinary problem-centered approach. Another attack might be to place more emphasis on process rather than on content. The expression of the learning that was accomplished could be performed either in or out of school. If the process is relevant to the pupils' needs, the community itself could become a learning center along with the school.

March 13

The last day was spent in sharing evaluations and challenges which grew out of the conference. Some comments pertaining to curriculum design for schools of the future were these:

> I feel committed to change from a teacher approach to a student approach.
>
> I see the importance of placing more emphasis on the examination of the emotions and their impact.
>
> Shouldn't we take a good look at social studies? I'm ready to consider a different approach.
>
> I feel a deeper commitment to encourage a more pluralistic school society in which the curriculum can thrive--also to search for a more relevant curriculum for inner city children.
>
> I see a greater need for parent and pupil involvement.
>
> The total problem needs to be identified before detailed answers are formulated.
>
> In all nations the problems appear the same, but the solutions are different.
>
> Out of confusion come searching questions which necessitate answers and alternatives.
>
> We need to be aware of all the forces influencing curriculum design.
>
> If not an international curriculum, then we need at least a curriculum to develop international understanding.
>
> We must see the value of the objectives of the curriculum before we can be involved in the implementation.
>
> Time and pacing must be considered in curriculum design.
>
> Can we make the mistake of too much planning for the future and neglect the present?
>
> How can publishers of teaching materials serve educators unless the educators start speaking in less abstract terms about curriculum improvement? Can't we give more direction to curriculum change?
>
> Have we given enough attention to the influence of technology, mass media, and social pressures?

Since our conference theme was "In the Minds of Men," then we must look deeply, sincerely, curiously, and boldly into our own minds to provide the best curriculum and instruction for the minds of our youth. To this challenge and search the members of this working party dedicate themselves.

Participants (13 nations)

Edward Ponder, chairman, Frederick A. Rodgers, co-chairman, Harold S. Baker, Hailu Bekele, Ghirma Dessalign, Isabel Dible, Dorothy Dreisbach, Erik Gyldenkrone, Rev. Renato J. Hevia, Gizatchew Hunegnaw, Do Ba Khe, Francisco Lira, Theophil K. Muellen, Kyale Mwendwa, Charles Ovans, Catherine Russell, Manuel Alambre dos Santos, Martha Shapp, Masako Shoji, Dagfinn Skaar, Soekati Tjokrowirono, Jens Winther, Marvin Ziesmer.

Designing Curriculum and Instruction for the Schools of the Future

Section D

Reported by GALEN SAYLOR, Chairman

This working party chose to identify major problems and issues confronting educators and the schools in the various countries represented by members of the party in developing a suitable and appropriate curriculum for the children and youth of the nation. Then we exchanged views and ideas on solutions for these problems. This report lists the areas of discussion, states the major problems and issues identified by the various members of the group, and summarizes briefly discussion on the topic.

Developing the Total Program of Education, K-12

By and large the group recognized that this was the most serious problem in every nation. Representatives from every country stated consistently (and this included representatives from the United States) that their nations had not developed appropriate programs of education for all children of the nation. Some groups inevitably are denied equal access to educational opportunities in the nation. In some nations the situation is extremely serious, with only a small proportion of the children selected to enter the academic high schools; a great majority have opportunities to continue only through the remaining years of the elementary schools and then enroll in the available types of vocational and technical schools. Representatives of developing countries emphasized strongly that there is serious inequality of educational opportunity among nations. They felt that steps would have to be taken to equalize on some basis the educational opportunities available to children throughout the world, regardless of nationality.

This discussion led to extensive consideration of multiple track plans of education and multipartite systems of post-elementary schools in many nations.

Effects of Social Pressures and Conditions on the Program of the School

Participants felt that many of the serious difficulties confronting educators and preventing the development of an appropriate school program in their nations was the fact that the people themselves did not want to reform education or regarded education as a vehicle for perpetuating and enforcing social class structure and social conditions that favor the ruling and politically powerful upper classes.

Another problem prevalent in a number of nations is the fact that students enter vocational and technical schools and prepare for particular types of occupation, and then are unable to obtain jobs in that occupation because the economy has not progressed to the point where it can absorb so many workers in particular types of skilled occupations. In some countries also more people are training for careers in engineering, the sciences, and the like than could possibly be absorbed in those kinds of positions in the nation. Representatives of those nations felt that they needed to find ways to reconcile the number of students enrolling in professional and technical programs of training and the needs for such people in the economy.

A third kind of social pressure on the schools was recognized to be the imposition of rigid college entrance requirements. In fact, representatives of many nations said that the curriculum of the secondary schools of their nations is primarily determined by college admission requirements and therefore is under the rigid domination and control of the higher institutions. In some countries, the last year of the secondary school program is primarily a "bridge year," that is, an intensive preparatory period for gaining admission to college and satisfying university admission requirements.

A fourth kind of social control was represented by unrealistic expectations of parents and citizens. They expect the school, particularly the secondary school, to make it possible for their children to attain types of positions and social and intellectual status that are often not realistic or feasible under the prevailing conditions in that country. They see the school primarily as a vehicle for social and economic mobility upward rather than as an agency for the fullest and most complete development of each individual.

Making the Individual Student the Central Consideration of the School

Participants unanimously felt that the schools were not doing what they should do to make the individual student the central consideration in curriculum planning and teaching. It was generally agreed that schools would have to do a great deal more in every country to individualize instruction, to identify more fully and validly the talents and capabilities of each person, and to adapt the instructional program to the capacities and capabilities of each child himself rather than base it on a rigid standard imposed by adults. The entire group repeatedly pleaded for schools that would develop the child to the fullest extent possible for his own sake. They wanted the schools to instill a love for learning, and a desire to continue one's own growth and development intellectually and to keep on learning throughout a lifetime.

Basic Elements in the Educational Program

Members of the group spent considerable time discussing what they felt should be the basic elements of a program of education at the primary and elementary school level. The inculcation of values was discussed extensively. It was felt that the children should analyze critically and examine the values of the adult society but should decide for themselves what value patterns they would accept. The group agreed that the educational program should be "relevant," but what constituted relevance was not fully determined. Considerable attention was given to the necessity of articulation and integration of the curriculum, particularly on a horizontal basis, but also on a vertical basis.

The fragmentation of the curriculum into separate subjects was particularly lamented, but no overt plans for developing a truly integrated program for children at a particular grade or age level nor for articulating the program between levels of instruction were developed by the group. It was agreed that the development of the child himself as he grows toward maturity is the basic consideration in efforts to integrate and articulate the instruction. The importance and influence of the extra-classroom activities of the school were also emphasized, and it was generally agreed that the school had not fully capitalized on the developmental potentialities of these programs.

Teachers for the Schools of the Future

The group was very much interested in teacher education, particularly in the preparation of teachers who could provide the kinds of education needed in each country. In some countries differentiation between the teachers of the primary or elementary level and the secondary level is very pronounced and all participants felt that this is a highly undesirable situation. There should be equal status among all of the teachers with respect to salary, load, prestige, social status, and levels and character of preparation programs. Much of the teaching is antiquated and does not include use of new methods, particularly in the use of instructional resources and technological developments. In some countries the potentialities and qualifications of young people preparing for the teaching profession are not promising, and participants from these countries said that efforts would have to be made to attract to the profession young people with better qualifications and greater potentialities.

Participants (10 nations)

Galen Saylor, chairman, Mary Hovet, co-chairman, B. De Sa, John F. Fanning, Elizabeth Filipkowski, W. Gerald Fleming, Gonzalo Gantier, Kemal Gucluol, Klaus Huhse, William P. Keim, Amelia Martinez Trucco, Frank Molyneux, William M. Powers, Rudy Rada, Sister M. Jordana Roche, Jack Stephens, Rev. Stephen J. Vander Grinten.

Preparation of Teachers for Primary Education

Reported by MAXINE DUNFEE, Chairman

Ten American and eight overseas educators were members of a working party charged with exploration of the problems of teacher education at the elementary level. The activities of the group were of four types: the exchange of information about teacher education in the various countries represented; the discussion of problems experienced in planning and implementing teacher education programs; the critical examination of innovative ideas reported by members of the group who acted as resource persons; and the development of plans for follow-up of the experiences of the working party.

To summarize the deliberations of the working party, the members of the group recorded on tape their individual impressions of their days together and of the conclusions drawn. These quotations, from various participants, are representative of the thoughts of the group.

General Impressions

"...the universal nature of the kind of problem we are all facing in the preparation of teachers in our countries."

"...impressed more by our common concerns than by any differences that might have seemed probable with the variety of nations we have here."

"Obviously, ten days are not long enough to change people's fundamental points of view, but... some at least have been severely dented."

"We at no time lost sight of the strengths and weaknesses of our several and individual programs around the world."

"The investment in teacher education has the potential of helping human beings in every country of the world to live more effectively and happily with one another in an environment that supports us all."

"...we felt that we were one family of the world doing something for the people in trying to improve whatever we are doing wherever we are located on the globe."

Questions and Problems

"...we want to know how we can... relate to young people who are going to teach so that the things we say to them or do for them or provide direction for them to accomplish are truly perceived by them as relevant."

"...there is great need to reevaluate and to ask ourselves what we are trying to do in teacher education."

"How can we provide the opportunity in the college program, including school and community, that will stimulate and strengthen those attitudes, sensitivities, and personal capabilities that characterize self-direction and creative leadership?"

"We've all agreed that the problem of helping our young teachers see what life is like in the classroom is a very serious one."

Professional Commitment

From England, "I want to see how one can link the practical characteristics of our primary school work with the abundant research in the United States on classroom behavior."

From Korea, "One of the possibilities I am dreaming of is that we may work together somewhere to establish a school or institute with more flexible ways, where we can explore or experiment with all the methods we can think of and then educate real teachers for the young people."

From Nigeria, "I hope that from the ideas acquired from this conference I will be able to suggest to my teachers....I hope my suggestions will be carried through to other schools."

From the United States, "My first goal is that I am going to learn to listen more and talk less, so that others have a chance to talk."

From Jamaica, "I hope to adapt some of these approaches to our teacher education program in our college on my return."

From East Africa, "I think as I go home I shall try to work out ways and means as to how these problems can be tackled in the context of my own country."

From the United States, "I've turned my attention to the kinds of things I have been inspired to do, maybe have gained courage to try in my work back home. ...In my course dealing with the teaching of social studies for graduate students, I plan to make international education one of the major projects for investigation."

From Ethiopia, "I hope that all of us...will work in terms of the knowledge and spirit we have acquired in this working committee."

Planning for follow-up had a high priority in the working party when the end of the conference grew near. As members prepared to go their separate ways, they frequently expressed reluctance to bring their rewarding experience to a close. Out of this concern grew the plans for a newsletter. The newsletter will be edited (at least in the beginning) by the chairman of the working party and will be issued at least twice each year, the first issue planned for the fall of 1970. Contributions to the newsletter--reports of innovations in the teacher education programs of the various countries represented in the group, information about and/or offers to exchange materials being developed in various situations, requests for help with particular problems, and personal items--will be solicited by the editor in the early fall with a deadline for contributions. As soon as feasible, Surf and Sand, Volume 1, Number 1, will become a reality. Members of the Commission on International Education will be on the mailing list.

One participant characterized the working party and its experiences in these words: "We worked as a team and thus lit candles of friendship, understanding, and cooperation which we hope will burn brighter with the passing years."

Participants (8 nations)

Maxine Dunfee, chairman, Mary Neville, co-chairman, Leon Boucher, B. Marian Brooks, Juliette P. Burstermann, Lyle Eggum, Kebbede Friesenbet, Mary Jummai Jarma, W. Senteza Kajubi, Sookney Lee, Marian Marsh, Clyde B. Matters, Herman A. Newsom, Gennette Nygard, Florence A. Orvik, Renford A. Shirley, Kedar Nath Shrestha, Maria Aparecida Vergueiro.

Preparation of Teachers for Secondary Education

Reported by DONALD M. SHARPE, Chairman,
and DAVID MANLY, Co-chairman

If you were to eavesdrop (via the tape recorder) on this working party, chances are you would close your eyes to concentrate on the symphony of inflections of the English language. As you listened, you might also visualize the wind-twisted Monterey pines, the rolling dunes, and the white-crested surf. During your first run-through of this tape, the cognitive content of the words would be lost in the music of voices--voices speaking a common tongue delicately modulated by the linguistic traditions of the individual's place of origin.

During the second playing of the tape, you would discover what the educators from the various nations consider to be the major problems in the education of secondary teachers. The statements which follow attempt to reflect the language and organization of each subcommittee making a report.

The Africans, representing Kenya, Nigeria, and Sierra Leone, identified:

1. The persistence of a system of education and organizational structures inherited from the colonial masters

2. The absence of adequate planning based upon the needs of an independent country

3. The irrelevance of the curriculum

4. The obsolete method and content of teacher education programs.

5. The relatively low salaries paid teachers.

The group members from Venezuela and Colombia pointed out that the 20 countries of Latin America have some unique problems and also some in common:

1. A shortage of qualified teachers--only approximately 15 percent have received any university training

2. The nonexistence of facilities to prepare teachers of vocational subjects: industrial, commercial, or agricultural

3. The low socioeconomic status of teachers and excessive teaching load--many teachers work in two institutions

4. The rigidity and obsolescence of the content and methods of teacher training

5. The low quality of university teaching: professors present poor models for students to emulate; research plays only a limited role in teacher training.

The problems of Asia, represented by Iran, India, and Thailand, were given as:

1. The relatively low academic rank of students who enter teacher-education programs

2. The improper distribution of teachers: great surpluses exist in some fields while serious shortages occur in others

3. The absence of institutions for training teachers of technical and industrial subjects

4. The need to develop a strategy for teacher education which: (a) prepares teachers to face the realities of the secondary school, and (b) raises the academic status of teacher preparation

5. The need for improved professional status and advancement, based on continuing study and growth

6. The need to develop a discipline of pedagogy which would indicate behavioral objectives and evaluative criteria for teacher preparation.

The four Americans started by identifying specific problems in student teaching or the practicum, such as training of supervisors, time allocation, quality of university supervisors, and variations among universities as they converge on a single public school system. Then they added:

1. The need for balance between academic and professional content of the program

2. The need for research on skills and competencies; the need for rationale of teacher education and agreed-upon criteria for evaluating teacher behavior

3. The need for controlled training programs where a college program is tested in the behavior of its products.

The representatives of England, Belgium, and Germany proposed an entirely new model, after pointing out that their teachers do have a relatively good economic and social status. The proposed curriculum for secondary teachers would be "World Studies--the World as a Whole," stressing interdependence, population, conservation, uneven rate of development, urbanization, industrialization, world trade, group tensions and war, elimination of discrimination, and political organizations to create a better world order.

The governing principles include:

1. Human values must permeate the curriculum.

2. Each country needs to be seen through the eyes of that country as well as those of an outside scholar.

3. Professional institutions for teacher training should become a resource for world studies. One task would be to examine material and content to see that they reflect the truth.

4. It must be recognized that there are techniques of teaching that are common to many academic disciplines.

After ten days of discussion, the following points represent the basic agreements on the necessary outcomes of teacher education. These are international in character and need to be exploited in order to achieve international understanding:

1. Knowledge of subject matter

2. Knowledge of the society in which the teacher is working (that is, the immediate environment and the socioeconomic community)

3. Knowledge of the world community and world problems (suggestion of world studies courses required in teacher education programs)

4. Knowledge of "teaching" (processes that enable students to learn, skills of classroom management, rationale for why a teacher does what he does, processes of interaction and involvement, process of self-instruction)

5. Knowledge of and ability to communicate with the young

6. Possession of ability to create healthy, warm relationships between and among students

7. Skill in the process of preparation (that is, planning) for various situations, with emphasis on scope and sequence and flexibility based on awareness of success and/or failure in implementation of plans

8. Skill in development of clear, significant, feasible objectives

9. Skill in the process of thinking--and thinking about thinking

10. Ability to create, develop, and use instruments of evaluation, including techniques of self-evaluation

11. Ability to construct, select, and use appropriate mass media techniques and materials to complement, enhance, and clarify subject matter being presented

12. Involvement in professional activities that affect the school and young people.

The group recognized the need to enhance the status of the teaching profession, but could not agree on the most appropriate methods. Nor could they agree about the wider role teachers should play in our society.

Participants (12 nations)

Donald M. Sharpe, chairman, David E. Manly, co-chairman, Kenneth D. Baker, Rev. Thomas Bangura, Ulrich Bliesener, Godfrey N. Brown, Ira B. Bryant, Jean Burion, G. W. Ford, Laura de Gurfinkel, Filemona Fundi Indire, Barend Frederik Nel, Jorge Augusto Olarte, Kantibhai Shukla, Vichitr Sinsiri.

Improving Curriculum and Instruction—Social Studies

Reported by BENJAMIN EBERSOLE and VINCENT ROGERS, Chairmen

Statement of Objectives and Approaches for Improvement of Social Studies

The purpose of the social studies is to educate students toward the development of a world in which all human beings may live in dignity. The goals of learning should be the construction of a future world system in which all human persons enjoy material well-being, the benefits of education, access to information, freedom from oppression and violence, participation in making the decisions which affect their lives, and a respectful, nourishing, and fulfilling relationship with all forms of life and their environment.

Students should be able to recognize and define problems, to gather and apply data in order to understand problems, to conceptualize and plan solutions, to evaluate various plans according to a value system which encourages commitment to action. Students possessing such skills may use them to build a world system in which human life is valued above institutions, freedom is valued above political ideology, and justice is valued above order.

The social studies, through social and behavioral sciences and the humanities, should introduce several basic concepts to students of all nations and all cultures. These concepts include the notion that mankind is a single species with basic common needs and that the world is a global system incorporating many human cultures and subsystems. Human and cultural differences should be studied and appreciated as varieties of the total human experience.

Learning experiences should be designed to help students understand the processes and causes of change through the careful analysis of all available data. It is imperative that learning experiences equip the learner with the ability to participate effectively in the process of change. This approach should foster the development of a value system which accords human dignity to all persons and produces empathy with and compassion for other humans of diverse cultures, both in their own countries and in other parts of the world.

Learning experiences should provide the child with opportunities to select subjects and modes of study and encourage his personal participation in the learning process. Children must be helped to understand themselves and others and permitted to discuss and reflect upon the nature of self and of other selves, such reflections being vital to the child's ability to build his own learning structures and to become a reflective evaluator of his own learning. Content should be based upon the realities of the life of the child, his community, and world society. Controversy, conflict, and serious problems must be as much a part of the child's in-school learning as they are of his out-of-school experience.

Such education implies the need to overcome unnecessary barriers among the disciplines and to create and use knowledge in a way which will contribute to the realization of the desired future world system. The creation and use of such knowledge should encourage the development of the highest levels of cognition, which can produce the kind of affective learning experiences leading to changes in behavior and to desired social change.

Proposals for Future Cooperation and Follow-up

Since it seems imperative that children and youth all over the world begin to develop the attitudes, skills, and understandings included in the foregoing statement of goals and objectives for the social studies, the members of our party made two parallel and not mutually exclusive suggestions relative to the development of elements of a transnational curriculum.

Proposal A: An international curriculum on man. The basic assumption of this curriculum is that by (a) having an informal curriculum on human behavior that starts with the beginning of schooling and is followed by a formal curriculum at the age of eight; (b) organizing this curriculum around the variety of ways people live; (c) discussing this variety in terms of environmental requirements, technology, and sociological factors; (d) including the study of values, myths, religions, and the creative accomplishments of various cultures; (e) showing that along with the above cultural differences there are also differences in the basic conception of man--

his purpose and goals, his good and evil, his individuality and social obligations--thus a curriculum on human behavior will be approached differently in different countries; (f) putting these separate approaches together into one single curriculum so that, for example, schoolchildren in France know what schoolchildren in Burma learn about their life, ideas, and social institutions, and vice versa; and lastly, (g) supplementing the formal learning about their own behavior and that of others with informal but organized correspondence with foreign classes using this curriculum--then from all of this one can hope will develop a greater understanding of oneself along with a more deeply felt sense of man's unity in diversity. We would hope that such a feeling of unity would develop as a basic part of the thinking process of children experiencing this education.

Although the lessons in this curriculum often start out with the behavior of the individual child and his classmates, it is equally important that the student understand the relationship between human behavior, human institutions, and system processes in the world. A mode for exploring this relationship is the discipline of world order, now part of international research and teaching at the university level. The study of world order is an inquiry into methods and strategies for achieving the fulfillment of three basic values: the prevention of war, the advancement of the economic welfare of all mankind, and the assurance of social justice in the world community. The study is futuristic and global in its perspective and multidisciplinary in its approach, focusing on the evaluation of various alternative international systems. It embraces the question of how change occurs and how we can bring about the changes that lead to a preferred world system.

The methodology of this curriculum will be based upon the experiences and behavior of the children themselves, both in the classroom and outside of it. The general plan will be to work from the specific experience of the children with experiments, activities, and games and proceed to their generalizations about human behavior and social institutions arrived at by a process of inquiry and discussion. The process will be projective, in that specific stimuli will be presented or provided for the children into which they will project their own individuality and responses. This design will be in terms of a branching series of alternate choices of activities organized into units around a general topic. The order of units will also be branching so that much choice will be allowed for both the children and the teacher in their proceeding from one interest to the next.

Clearly, a detailed strategy for implementation of such a curriculum would have to be worked out. This includes, of course, the problem of teacher education.

Proposal B: Transnational guidelines for social studies programs. A team of teachers, curriculum specialists, and others might attempt to identify illustrative themes, concepts, or problems appropriate for study in the schools of a number of nations. We would not anticipate the creation of a uniform "international curriculum." However, we do think that it will be possible to develop a set of transnational guidelines for social studies programs. As an example, topics such as urbanization, the nature of political power, alienation, cultural diversity, revolution, conflict and violence, and social change all appear worthy of international study and curricular development. It is also possible that existing projects might

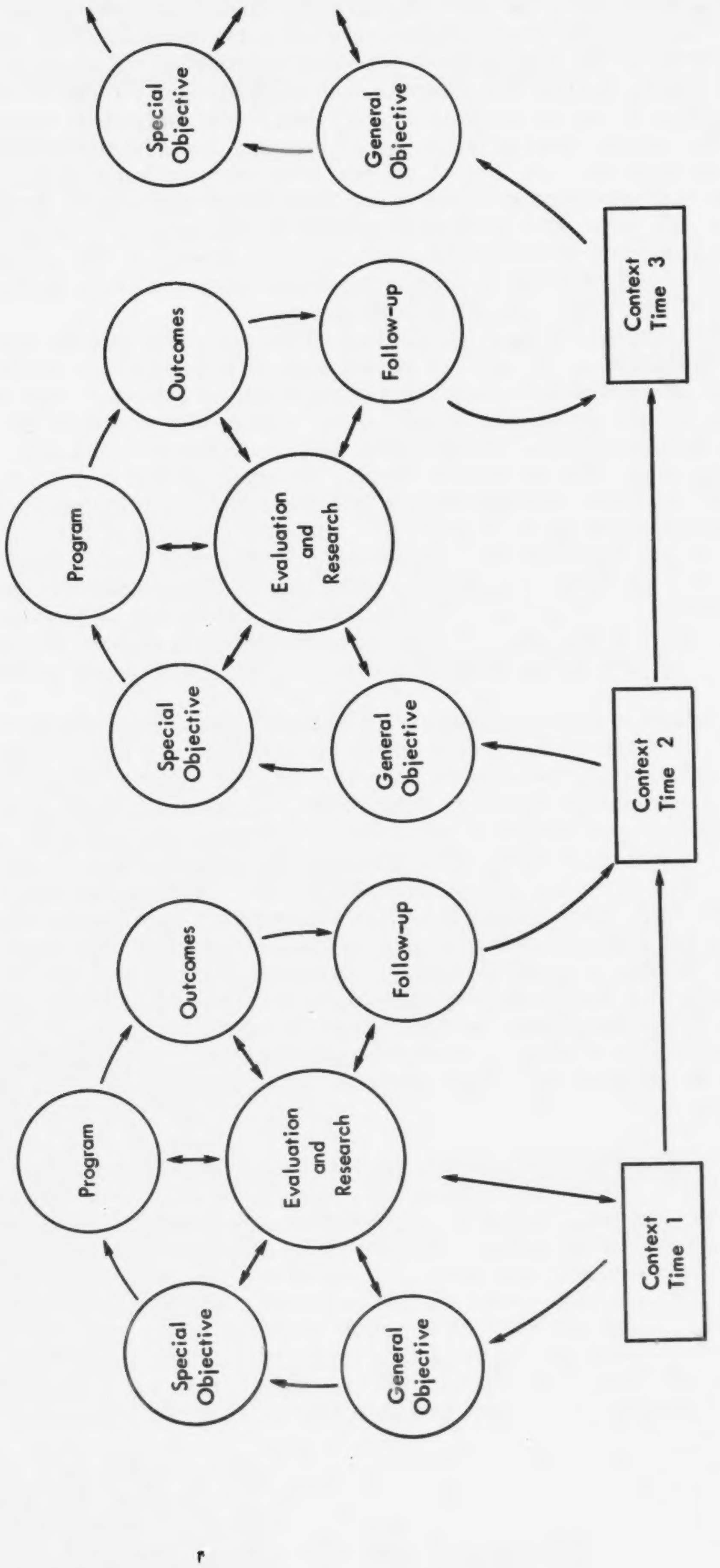

Special Objective
General Objective
Program
Evaluation and Research
Outcomes
Follow-up
Context Time 1
Special Objective
General Objective
Program
Evaluation and Research
Outcomes
Follow-up
Context Time 2
Special Objective
General Objective
Context Time 3

Figure 1. Planning, Conducting, and Evaluating In-Service Education

be examined as possible "core" material for such a project. It is impossible to say which ideas, topics, or themes would be agreed upon as vital from a transnational point of view. However, the identification of such themes and the development of sample teaching approaches and materials which would be tried out in a number of schools around the world might help educators see the possibilities for change in existing programs.

Participants (12 nations)

Benjamin Ebersole and Vincent Rogers, chairmen, Kenneth Bateman and Seymour Fersh, co-chairmen, Samson Adebayo Adewuya, Ghirma Dessalign, Peter Dow, Russell Farnen, Stanley Gilbertson, Lawrence E. Giles, Magnus Haavelsrud, A. Doris Banks Henries, Galip Karagozoglu, Barbara Ellis Long, J. A. Majasan, J. Paul Martin, Robert Martin, Helen P. McGinnis, J. M. Obando, Jesus Orlando, Ethel Oyan, Betty Reardon, Devendra D. Tewari, Huber M. Walsh, David Wolsk.

In-Service Education

Section A

Reported by ARTHUR J. LEWIS, Chairman

The 15 members in the working party were unwilling to limit their discussion to the topic assigned, "In-Service Education--Upgrading of Substandard Personnel." They recognized that, in a period of rapid change, continuing education for all teachers becomes a necessity. Accordingly, the group discussion encompassed in-service programs for all educational personnel, including supervisors and administrators.

The common practice of focusing discussion on problems identified by the group was not followed. Instead, the group developed a model for the planning of in-service education programs. The model evolved from an analysis of reports of five different in-service education programs in five different nations. With each analysis, new insights were gained. After the model was developed, it was tested by examining three additional in-service education programs. The model is portrayed in Figure 1.

This model attempts to show the steps involved in planning, conducting, and evaluating in-service education programs. It has the usual limitation of models in that it oversimplifies a very complex task by suggesting that an effective program can be developed by following a sequence of steps. A further limitation of the model is that it attempts to convey complicated and interrelated events by means of a word or phrase. However, a brief explanation of the model may be of assistance to the reader.

An in-service education program is based on a set of assumptions that may be relatively constant in a given nation over a period of time. These assumptions include values that undergird a nation's educational system as well as basic principles of learning that are to be reflected in the in-service education program.

In-service education should grow out of an analysis of the needs in the educational system as well as the professional needs of individual teachers. The information to be considered in this analysis is represented by the box labeled context. The model portrays the passage of time by movement from left to right. Thus, as each cycle of in-service education programs is completed, the context will have changed; that is, the needs for in-service education will vary from context, time 1, to context, time 2. It is recognized that several in-service education programs will be underway concurrently; this is not portrayed in the model for purposes of simplicity.

The general objectives are identified from an analysis of the context information. These general objectives would probably indicate the general area for in-service education, such as a subject field, and the general group of participants. The specific objectives identify behavioral outcomes for specific teachers or groups of teachers. At the stage of program development, a determination is made as to the content of the program, resources to be used, and processes to be followed. The importance of relating program to assumptions, context, and general objectives, as well as to specific objectives, is recognized.

The outcomes of an in-service education program are the changed behaviors of teachers. An attempt should be made to study these behaviors. Further, teachers should be provided with continuing assistance in utilizing what they have learned through follow-up activities.

The placement of evaluation and research in the center of the model is to suggest that these activities can take place at each step in the sequence. The double arrows represent that data collected at various stages are used to influence decisions at other stages.

Considerable time was spent in discussing possible procedures to be followed at the various stages. A complete report of the ideas generated is being prepared for the participants.

Members of the working party plan to share their experiences in using the model in planning, conducting, and evaluating in-service education. It is anticipated that this will provide an effective way to exchange information since members of the group will be using a shared framework for reporting. This exchange of information may result in improvement of the model to the point that it will be generally useful.

Participants (10 nations)

Arthur J. Lewis, chairman, Aida A. de Vergne, co-chairman, Willard J. Brandt, Ziya Bursalioglu, Ines Durana, Edward L. Edmonds, Dorothy Kao Hoh, Dinesh C. Joshi, Phyllis Macpherson, Robert Morris, Abbas T. Najim, Magnus M. Pewa, Herbert J. Reese, Anthony Rinaldi, Pakasi Supartinah.

In-Service Education

Section B

Reported by MILDRED A. CARLSON, Chairman

Professional responsibilities and concerns of the members of this working party varied considerably, influencing feelings and directing the flow of discussion. It seemed more appropriate to consider our focus as "continuing education" from the preservice period into the in-service years rather than as "in-service education," because in some nations in-service activities are planned to help teachers reach minimum standards that are expected by other nations in their preservice programs.

The diversified individual problems identified by the group provided four ways to look at in-service or continuing education. None was thought to exist in isolation; all interrelate and overlap. However, the following four categories did provide a framework for the examples of different types of in-service experiences described by members of the group.

As Compensatory Education

Some teaching personnel have insufficient preparation for the responsibilities they carry. In other instances, formal courses have provided inadequate foundations in knowledges, understandings, or techniques. Institutions and local school systems offer ways to compensate for these lacks.

As Continuing Professional Development

Changes in curriculum content, new information about learning, as well as processes to stimulate learning and new systems of education necessitate ongoing opportunities for professional development. These may be in the format of workshops, seminars, courses, etc.

As Preparation for a Change in Roles

Specialized courses, primarily under the auspices of approved institutions, help interested persons in meeting certification requirements for different roles.

As a Process of Changing Behavior, Values, Attitudes

While "change in behavior" is the end-goal of all in-service education, some programs are designed to help achieve change more directly. For example, there are programs (a) to help one better understand oneself, other people, and interpersonal relationships; and (b) to attain a climate conducive to exploration, experimentation, and creativity.

From the illustrative experiences described by members of the group, the following generalizations were made:

> Teaching should be a year-round job including assigned teaching responsibilities and professional/personal development activities.

When teachers develop learning materials, classroom instruction is more likely to be affected immediately.

A climate that values flexibility allows preplanned in-service education sessions to adapt to concerns and needs of the participants.

When teachers are involved in planning in-service education, there is greater commitment to purposes and to implementation.

Personality traits--for example, empathy, warmth, and genuineness--affect teacher effectiveness and can be improved through in-service education.

As a result of interaction and exchange of ideas, the group further agreed:

In-service education is too important to be left to chance--the chance that the school will provide it and/or the chance that the teacher will take it. In-service education is necessary for the development and maintenance of excellence in teaching. It should be available to and required of all teachers.

In-service education should provide quality experiences for teachers. Fresh new ways of utilizing·personnel, money, and other resources should be developed.

Systematic programming is needed; it should be designed to reflect teachers' personal needs, students' needs, needs of the school and the profession.

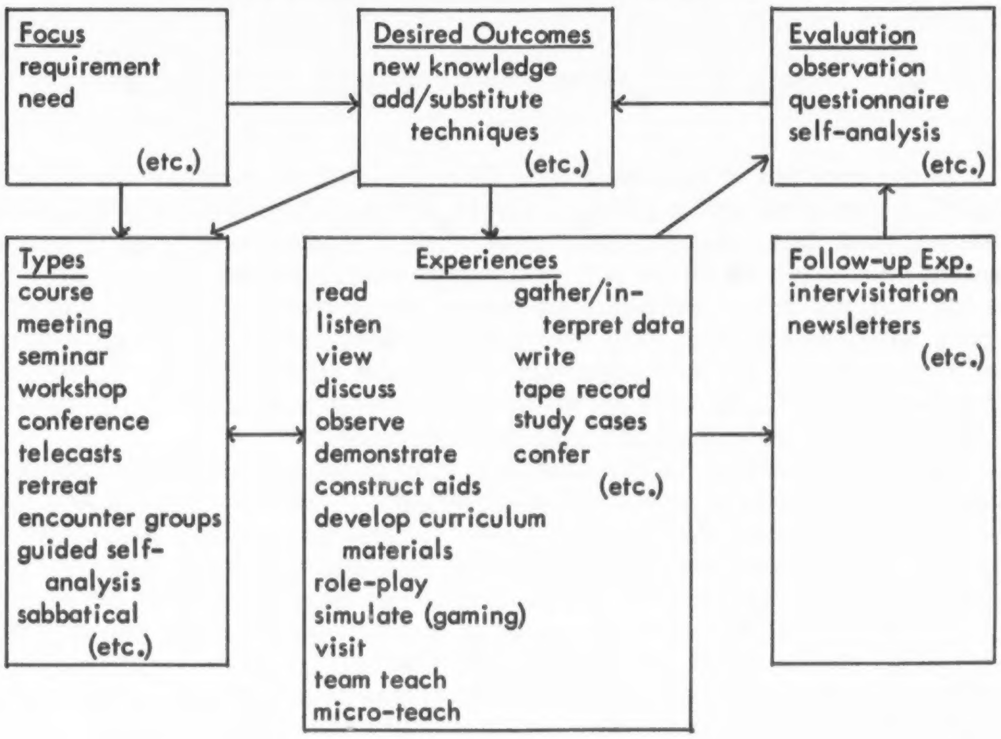
In-service education, to be effective, requires rewards commensurate with other kinds of educational experiences, such as preservice and graduate school.

The relationship between preservice and in-service education should be reexamined; new, clear, and more workable relationships should be developed.

The descriptions of in-service projects shared by members of the group provided information to develop the model shown in Figure 1. From the alternatives, although incomplete, specific in-service designs can be proposed once the focus and desired outcomes are established.

Personal and professional gains, because we were privileged to attend this conference, were recognized. A natural response was a desire to extend international experiences so more people could profit from them. Examples of cooperative interaction among students and teachers of all nations that would promote multiple and unique benefits related to the group's concern for in-service education are:

Figure 1. Model for "Continuing Education" Designs


Focus
requirement
need
(etc.)
Desired Outcomes
new knowledge
add/substitute techniques
(etc.)
Evaluation
observation
questionnaire
self-analysis
(etc.)
Types
course
meeting
seminar
workshop
conference
telecasts
retreat
encounter groups
guided self-analysis
sabbatical
(etc.)
Experiences
read
listen
view
discuss
observe
demonstrate
construct aids
develop curriculum materials
role-play
simulate (gaming)
visit
team teach
micro-teach
gather/interpret data
write
tape record
study cases
confer
(etc.)
Follow-up Exp.
intervisitation
newsletters
(etc.)

Practicing supervisors and/or administrators whose major concern is the improvement of instruction working as co-consultants in the local situation of one of the participants

Interchanging experiences of practitioners through publications, conferences, visitations, cooperative planning sessions, workshops, etc.

Exchanging plans for improving substandard performance, for example, the plan in the process of being developed by the Ministry of Education in Jordan with the consulting services of several international agencies.

Our discussion of in-service education was itself an experience in in-service education. The people, ideas, and setting provided a learning experience of lasting professional worth.

Participants (8 nations)

Mildred A. Carlson, chairman, James Aldrich, co-chairman, Sam Awudetsey, Herbert I. Bruning, Stanley Gilbertson, Motuba Israel Harding, Daphne Mayorga-Solis, Rev. M. Elia Peter, Doris G. Phipps, Richard G. Rausch, Jeanne Rinaldi, Labiba Salah, Satoshi Shimabukuro, Bert Stark, Jr., Lucia Yzoard.

Cross-National Research in Teacher Training and Teaching

Reported by MARGARET LINDSEY, Chairman

In the process of personal identification, each participant talked briefly about his concerns and his objectives in terms of the working party activities. It was immediately clear that wide differences existed in both the content of concerns and the working styles of individuals. From the initial discussion and from written statements by participants, six areas of interest were abstracted. By a process of elimination and reorganization, two large and ill-defined areas were selected for further work, each by a subgroup. Later subdivisions within those two groups resulted in clusters of individuals who undertook more specific tasks.

When the total party reconvened, reports from the cluster groups included the following noteworthy observations: Teacher training is a large and complex enterprise in which there is urgent need for systematic inquiry. The number and variety of problems and questions that need to be investigated are great, and the difficulties to be overcome in prosecuting research to produce verified knowledge about those problems and questions are many. Diversity of patterns in teacher training within one nation makes summative assessment difficult; diversity of patterns across nations compounds the problem of international study of teacher training. Nevertheless, considerable confidence that difficulties could be overcome and that worthy empirical study could be achieved was expressed. Furthermore, it was agreed that such study must be undertaken.

Proposals from Cluster Groups

Each cluster group was sensitive to the range and variety of problems that might be foci for systematic study. But participants in this working party were also aware that beginning stages of cross-national research efforts must necessarily be limited. Consequently, the following four proposals from cluster groups represent selection, from among many projects that might be considered, of those of particular concern to participants.

What Children Need (Are Expected) To Know[1]

This topic was refined for two purposes: (a) to permit comparison of internationally common and nationally specific needs, and (b) to provide national criteria by which to validate the efficiency of teachers, teaching methods, and teacher education.

Establishing what children need to know was seen as involving the identification of national needs, viewed by some members as an impossible task. The problem of who should decide what children need to know raised issues which some felt would lead to complex tasks. A substantial minority of the group felt that to determine the criteria of what children are expected

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[1] Persons interested in more information on this proposal should contact Dr. K. Brian Start, Professor of Education and Director of Education Research, University of Saskatchewan, Canada.

(need) to know in their society was, though difficult, not an impossible task, and to this end are establishing cross-national links to review and refine possibilities in this direction after the Asilomar conference. The need for criteria by which to validate teaching methods, teachers, and hence teacher education programs was regarded as being too vital to be bypassed because of its complexities.

An International Comparative Study of Student Teacher Characteristics, Their Cultural Origins, and Professional Development[2]

The attitudes, values, personality structures, and orientation to and understanding of the teaching process of students entering the profession would be ascertained (following two- or three-year courses in the case of non-university student teachers, four-year courses in the case of B. Ed. students and Arts and Science graduates). These would be compared with other professional groups (for example, nursing, law, engineering students) and with the attitudes, values, and personality structures of the same students upon the completion of their courses. By comparative analysis (and by representative findings) the attempt would be made to link student characteristics to the cultural complex in which the students have been reared. The views of experienced teachers would be of some interest.

The general objective of the research would be to discover the common elements in the values and attitudes of teachers in different countries due to the professionalization process and what differences mean as to residue of cultural influences. The methods employed would consist of classroom observation, interviews, library research, and questionnaires.

Inquiry into Relationships Between Selected Training Activities and Trainees' Achievement of Specified Objectives[3]

The central purpose of this inquiry is to provide a beginning in the accumulation of knowledge about relationships between training activities and the achievement of designated objectives by teacher trainees. The study would be conducted in a series of steps, each dependent upon its predecessor, as follows:

Hypothesis I. Definitions of intended outcomes (objectives) of teacher training programs, or any segment thereof, by teacher trainers in several nations will reveal both differentiated (nationally-oriented) and common (generic to teaching) objectives.

Hypothesis II. Common objectives can be defined in terms that (a) are appropriate to teacher training in participating nations and (b) permit the observation and recording of data on the achievement of objectives.

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[2] Persons interested in more information on this proposal should contact Dr. John McLeish, Professor of Educational Psychology, University of Alberta, Edmonton, Alberta, Canada. Dr. McLeish and a group of colleagues are engaged in a number of other cross-national research projects. He will respond to requests for information on these, as well as the one indicated above.

[3] Persons interested in more information on this proposal should contact Professor Margaret Lindsey, Teachers College, Columbia University, 525 West 120th Street, New York, New York 10027, U.S.A.

Hypothesis III. If training activities X (as defined and carried on by participating teacher trainees) are provided for students preparing to teach, the students will achieve Y (the common objective being subjected to study).

It is anticipated that reports on specific training activities, together with results of systematic inquiry into their effectiveness in each situation, will be disseminated to all participants. Tools and procedures for describing training activities and for assessing their effectiveness will be developed by local teacher trainers and shared across nations. Where appropriate, comparative description and assessment will be undertaken. However, the purpose is not comparison; rather, it is the production of knowledge about the training of teachers.

A Communications Network for the Exchange and Furtherance of Educational Research in the International Field[4]

Despite the presently available channels for communication about international research efforts and findings and about nationally conducted research with international implications, rapid accessibility to information is lacking. A more adaptable and responsive mechanism for communication is urgently needed. To contribute to the meeting of this need, three measures are recommended: (a) an international newsletter for research, published on a regular basis to maintain currency in the field, (b) a separate journal for international research in education (probably cosponsored by several organizations), or a regular section in Educational Leadership for dealing with international research, and (c) an international communications center for research with specifically assigned functions. All of the preceding recommendations require consideration of levels of funding, identification of appropriate contacts and resources, and delineation of responsibilities and relationships.

In conclusion, it should be noted that the proposals made in this working party are in forward motion and represent a considerable commitment to follow-up activities. Association among participants with like or similar interests has been developed and it is anticipated that efforts to pursue plans begun during this conference will be fruitful. In this connection, some thought has already been given and more is needed concerning the presently available organizations and institutes that might be utilized in facilitating cross-national research on teacher education.

More detailed and specific reports are being developed and exchanged among members of the working party. Persons interested in these detailed reports may learn about them from the sources indicated in the several footnotes.

Participants (13 nations)

Margaret Lindsey, chairman, George Dickson, co-chairman, Manuchehr Afzal, Robert N. Anderson, Mary Jane Diehl, Ned A. Flanders,

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[4] Persons wishing to get more information on this proposal should contact Dr. Willard Leeds, Director, Laboratory for International Research in Education, University of Wisconsin, Madison, Wisconsin 53706, U.S.A.

Carol N. Green, Arthur Hoppe, Torsten Husén, Sandor Klein, O. K. Kyostio, Willard Leeds, Lillian Logan, Virgil G. Logan, James B. Macdonald, John McLeish, Nassim G. Mehedff, Eustas O'Héideáin, Noor Gul Raheemi, Paul D. Regan, Samuel Smith, K. Brian Start, Gordon I. Swanson, Richard Tisher, T. Upraity, D. K. Wheeler, Jack Wrigley, Jing-Jyi Wu.

Designing New Programs for Early Education

Reported by MARGARET YONEMURA, Chairman

The workshop was viewed as an initiating process--initiating a sharing of ideas, a sorting out of similar and different concepts about education of the young; and initiating new ways of looking at this education. Yet the group itself, with its development from formally behaving, polite contact to a cohesive informal whole, was the major initiating activity. As one sensitive and articulate member (articulate in English even though this was her second language) commented, a group of many nationalities had become a group of known adults. This process of knowing one another was seen as personally strengthening and an intangible but invaluable outcome of Asilomar. It is such feelings that will enable the group to make the next steps that almost have to be carried out because of a sense of personal as well as professional commitment.

Bases for New Designs

The following summing up of our thinking is possible only because there was substantial consensus on underlying bases for an education program for the young.

Base 1. The education program has to recognize the inner world of children. Jean Piaget has developed the concept of structures in the mind and "as mind" in relation to the cognitive aspects. Children have structures or a framework for feelings, beliefs, and values. These are not static, but differentiate like the sea at Asilomar as the day lengthens. At each stage these inner structures of the child's mind have their own beauty of form and expression. The behavior of young children gives pleasure to most adults because it demonstrates their unique, delightful way of viewing life. The program must search out the thinking and feeling of young children. To do this there must be additional bases.

Base 2. A teacher must be one who presses children on to higher levels, enjoying the child at his present stage and savoring that which is evanescent. A teacher is a knowing, feeling person who demonstrates the unending process of development by being a growing adult. She seeks to embed concepts in the children's lives (for example, they do not learn to recognize the color red so much as to begin to grasp the infinitely complex perpetual aspects of redness, a grasp of which permits expansion of their aesthetic sense). A beginning is made in combating the "I know what I like but I don't know why" illiteracy that perhaps accounts for so much human inability to construct environments that please.

Base 3. The program is carefully structured, uncontrived, and unforced. Yet every element in this is consciously planned. For example, equipment and space are specifically designed and redesigned to create environments in which the feelings and understandings children bring with them can be freely and visibly expressed and in which the feelings and understandings of the teacher can interact dynamically to aid human growth and development--socially, physically, emotionally, and psychologically.

Base 4. The content of the program incorporates learnings in the subject fields. For young children, learnings overlap and the concrete and abstract are fused. For example, in learning to count objects, children talk about the objects and respond to those around them by withholding, giving, and showing the objects. Root learning in language development, mathematics, and so on is thus embedded in a social matrix where learning to respond to others in a structured environment is a key outcome. Structure is not to be confused with rigidity or preformation but is viewed analogously with the delicately responsive work of a Lippold rather than a Rodin.

Role of the Family in Education Programs for Young Children

In this complex area, there was no consensus as to the role of the family; in fact, there were differences of viewpoint that sharpened the focus for all the group. A subcommittee worked on this area and submitted the following summary which was presented to the group:

1. All children need early childhood education and nearly all families can profit from the help of institutions dealing with early education. A complex society has diverse problems which should be accommodated by offering different alternative designs of institutional organizations and structure which will satisfy the needs of the father, the mother, and the child. For example, the demands of career-oriented women would be different from those of women who enjoy being with their children all the time.

Examples of different patterns of organization which may be considered are those highly organized groups for children which exist in Israel, Russia, and China. Many forms of communal living exist in other parts of the world, for example, cooperative and preschool play groups where parents and teachers cooperate, and play centers where the different members of the family (mothers, fathers, grandparents) are responsible for the entire program of the play school group. Such play centers and family education centers now exist in New Zealand and in Australia.

2. There/should be experimentation in working with children in groupings that cover a wide range of ages:

a. 3-6
b. 3-7
c. 3-12 and 12-17
d. 3-5 and 15-18
e. Other possible combinations.

3

3. Responsibilities, understandings, and skills needed in family living (broadly defined) should be included in the curriculum of all grades (child development and intellectual stimulation of children, as well as ecumenics, etc.).

4. In order to carry out this variety of designs for the organization of institutions dealing with early childhood education, industries and business organizations have to cooperate with governmental and educational agencies concerned with early education.

5. To facilitate this cooperation, a community might find it necessary to establish an early childhood education council composed of members from the above-mentioned agencies and other possible agencies.

6. We recommend that, in every stage of planning and carrying out of the plans, parents be represented.

7. A variety of programs for training workers for early childhood education should be considered (training for different levels of proficiency).

8. A council should be established which would look into cooperation with television and radio personnel in developing more and better education programs for children and parents as well as exchanging programs about child rearing in other countries.

9. We recommend continuous research and exchange of information on a worldwide basis.

Helping Children with the Concepts of Internationalism

This subject was discussed fully in agreement with the points of view expressed in the paper prepared for the conference by Dr. Joan Moyer.[1] There was consensus that such concepts could not be conveyed didactically but through teachers and children formulating ideas and drawing conclusions from real life experiences.

Next Steps

1. Elizabeth Ann Liddle and Margaret Yonemura offered to act as sorting sources for materials participants feel should be shared with the group. Marianne Everett volunteered responsibility for helping in their dissemination.

2. All members plan to meet at O.M.E.P. (World Organization for Early Childhood Education) in Bonn, Germany, in August 1971. The agenda for that meeting would be worked out by all members of the group by December 1970, so that advance preparation and planning can be done.

Participants (10 nations)

Margaret Yonemura, chairman, Elizabeth Ann Liddle, co-chairman, Paz Bartolome, Gladys Berns, Heather Birrell, Ann L. Bradford, Marianne

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[1] See Appendix, p. 132.

Everett, Donald Farrar, Alexander Grey, James L. Hymes, Jr., Doan Huu Khanh, Sandor Klein, Roy Mangini, Joan Moyer, Paula Muchitsch, Lise Herber Ostlyngen, Walter H. W. Schultze, Minoru Sumio, Pearl N. Yamashita.

Instructional Technology in Education

Reported by HARRY JOHNSON, Chairman

The term "instructional technology" not only implies new materials and new ways of presenting information, but also has implications for more varied strategies and techniques of instruction throughout educational programs. We mean by this the incorporation of technology into the planning of curricula and the systematizing of the teaching and learning experiences. Inherent in instructional technology are the potentials for individualized instruction and other learner groupings.

For more than a quarter of a century educators have variously referred to nonbook or nonprint materials as educational media, instructional communications, educational technology, communications media, to name a few of the terms they have adopted over the years in rejection of the earlier term "audio-visual materials." In our opinion the time is at hand for educators to select terminology which will incorporate all instructional materials and be clearly recognized and understood internationally.

Changing of Attitudes

Educators have several fears regarding instructional technology: fear of inadequacy in handling and using instructional technology effectively; of a resultant loss of prestige and status in their classrooms and communities; even of losing their jobs.

The rapid changes in instructional technology keep teachers breathless as they try to update themselves and to qualify for new school systems which may be far ahead of the old. Administrators for their part recognize that the high costs of instructional technology impose higher taxes upon the communities; that expensive equipment can become obsolete before teachers master it; and that schools using instructional technology may be regarded as entertainment centers.

It is clear that in order to promote the acceptance and effective use of instructional technology, educational organizations should place great emphasis upon disseminating information about instructional technology. These information programs should include descriptions of all technological media available, demonstrate how they may be used, and include seminars, in-service programs by which teachers and department heads may examine and use the new media. They should induce representatives of equipment manufacturers to be present when educators meet to design curricula. Educational organizations should extend their recommendations to the widest range of educational authorities, without whose support no innovative program can successfully be launched.

Design of Spaces and Facilities

In a majority of the world's educational systems, school design is inadequate for the needs of educational technology. Contemporary school design should be utilized at all levels of education.

It is a fact recognized by professional educators and educational media specialists that, within the next 30 to 50 years, educational technology not known today will be introduced to the profession of education. Flexibility in media, a multiplicity of strategies, and a relevant curriculum must be made to accommodate the media and to rely on expertise in architectural design and on designers of messages to participate in curriculum development not only for the late 20th century but for full entry into the 21st century. Such designs of the teaching environment should consider the physical problems encountered in the systems of all countries. International cooperation in the design and standardization of equipment and devices will permit both the adaptability of electrical systems and the global interchange of materials.

Design of the Instructional Technology Curriculum

There is wide agreement today that education should undertake to let a person discover himself and to develop the whole person in the process. Therefore, learners need programs of study and experiences at each stage of development which bring understanding of life, and skill and pleasure in coping with life.

Thus, it follows that no one category of educational specialist can bring a full perspective to the task of designing curricula. Rather, all the specialists of the educational hierarchy should participate in elaborating the curriculum.

The term "specialist" includes the teacher, the research scholar, the curriculum designer, the administrator, the psychologist, the librarian, the scientist, and the educational technologist. Together this team can be expected to draw up a valid and enlightened program that will relate to the environment of the locality and the planet.

It is also suggested that there is an auxiliary group, a backup team which should participate in the design of the curriculum: this includes the parents, the local educational authorities, and other community people who support education and who expect that the products of the curriculum will find a constructive and compatible place in society.

Given a sustained rapport between these two teams, educators--who are the proper designers of curricula--can better shape curricular practices which take into account the needs and aspirations of learners and the expectations of communities. Thus any struggles over equipment, textbooks, and budgets may be attenuated; the sense of community will have greater strength and continuity.

Cross-National Cooperation

It is proposed here that more regional centers for the use of instructional technology be cooperatively created throughout the world. Such centers would collect and distribute information on the design of instructional technology; plan for its use as best suited to the nations of the region; promote pioneering practices and evaluate their validity, feasibility, and development of leadership; and further produce and disseminate instructional materials and equipment.

Operation of the center would be the responsibility of specialists of the nations of the region--and of other industrialized nations--who would make known the circumstances and needs in the nations of the region, and who would exploit the potentials of instructional technology in terms of these requirements.

Financing of Instructional Technology

The World Bank, UNESCO, U.S. AID, and similar agencies, traditional sources of socially directed funds, might be solicited for funds to amplify the resources of nations which would cooperate in the regional adoption of instructional technology.

The competitive demands for support warrant that, in the developing countries, funds first be allocated to test whether in agrarian societies instructional technology will have the effectiveness anticipated in industrialized nations. Comparative analyses of costs and benefits should be made to determine the scale and pace of the use of instructional technology in these contrasting areas. Upon this basis, projections of the potentialities of instructional technology programs could be made to donating agencies. Such cooperative surveys of local conditions and needs would clarify the goals of participating nations and establish a strong rationale for support from international funding agencies.

Participants (8 nations)

Harry A. Johnson, chairman, Yoichi Nishimoto, co-chairman, Kamar Abdou, Adeniji Adaralegbe, Adawia Alami, Sherley Ashton, Karim Fatemi, Richard K. Jones, Ki Hyoung Oh, Roberto A. Rivera.

Education's Role in Eliminating Barriers Among People

Section A

Reported by DEREK L. BURLESON, Co-chairman

This working party began with an attempt to identify some of the major barriers that divide people. A corollary to this effort was also to identify ways in which the educational system creates barriers among people.

At the suggestion of Susan Cummings, we used the "force field" technique to plot the forces that worked for and against the goal of establishing rapport among people.

Where do children get their ideas about other countries? How do American children get the idea that the Soviet Union is a nation you cannot trust? How often are we guilty of name-calling, for example, "Red" China, which gives children a distorted view of another culture? In the study of other cultures, can we give enough factual information to provide children some sense of the totality of that culture?

While it is not possible to teach about all cultures in depth, perhaps we should concentrate on attitudes that will serve us when we come in contact with other cultures.

Nationalism can be both a positive and a negative force. Developing countries in particular need a spirit of nationalism to develop a national community that will contribute to economic productivity and democratic stability. Language is an important aspect of the national conscience.

A claim had been made that English has become the world language because of historical precedents such as the influence of the British Empire and importance of trade with the United States. Whether English should be the world language was a serious question of debate among our group. To some it smacks of an arrogance too long associated with the imperialistic powers. In terms of statistics, however, the argument can be made that English is fast becoming a world language.

A healthy nationalism should encourage criticism of national policy. A spirit of internationalism can be overdone if it destroys cultural identification. Man cannot live as a cultural neutral. Most men need cultural roots to function adequately in any society.

The South African incident at the conference proved to be a turning point in our working party. It moved us out of the abstract into a highly emotionally charged topic in which we were directly involved. This incident came midway in the conference and provided the living subject matter for most of our sessions that followed. We capitalized on this "teachable moment," for nothing could have been more pertinent to our assigned topic, eliminating barriers between people.

Opinions expressed over the South African incident ran the gamut from outrage to compassion. (When a protest was issued by the black African participants at Asilomar over the presence of a white South African on the program, the ASCD Commission on International Cooperation in Education, after lengthy consultations with all parties concerned, decided to ask the white South African not to appear on the program.) A sample of opinions follows:

> "There are other ways than this type of confrontation and intimidation. We have destroyed the dignity of this man (white South African). We should have restructured the whole conference for a total discussion of this issue."
>
> "In a Ghandian spirit the comment was made that you love a person before you protest him. This type of confrontation only builds fresh barriers."
>
> "This is a racial issue, but it dictates political policy. One possible consequence is the impossibility of holding international meetings."
>
> "I am happy it happened," said one member. "It points up the naïveté and ignorance of educators. Confrontation is necessary. Conflict serves a useful social function."
>
> "Educators cannot play a hypocritical role any longer. You cannot isolate education from the political sphere. In the U.N., when a South African speaks, the black African delegates walk out. If we believe in the dignity of human beings we cannot justify presentations from those who represent countries which do not espouse this policy."

> "If a protest is political it is justified, but if an individual is stereotyped this is unjust. The value of a protest should be considered."
>
> "There seems to be a conflict of principles at work here. One type of discrimination cannot solve other forms of discrimination. Our own distorted and limited backgrounds lead us to behaviors which build barriers."
>
> "We must reach out to achieve the goal of human dignity. We must learn to help each other regardless of racial, ethnic, or national differences."
>
> "We must be concerned with the individual. In spite of the Chinese heritage of hatred for the Japanese, personal interaction with an individual from Japan has led to new understanding and liking that person."
>
> "Listening can be taught, and it is one way to break down barriers among people, as has been demonstrated in this group. Differences were based on lack of knowledge and distortion of facts. By listening, we discovered that we are in closer agreement than appeared at first."
>
> "The assumption that people come to these conferences as individuals is not valid. There are too many variables--money, governmental policy, job responsibilities, etc., which affect attendance at conferences of this type."
>
> "Those who speak should represent the universality of man. We must not avoid, but rather bring conflict into the classroom. Each person must be prepared to take the consequences brought on by his behavior."

The outcome of the free expression of opinions about the South African incident was to bring our working party closer together. We listened to each other, we became more accepting of various points of view. In short, we were sensitized.

How does the educational system deal with the forces that create barriers? Every community imposes some barriers, some consciously, some unknowingly. Parents create barriers by opposing experiences for their children that are alien to values that the parents hold. In the U.S.A. this is clearly evident in the controversy of neighborhood schools versus racial integration.

In many ways the school is isolated from the community. To oppose community standards can be very threatening to teachers and administrators who are dependent on the community for financial support.

There was general agreement that schools must become more involved in controversial issues, including political questions. The problem was recognized that it is often difficult to draw the line between discussing and analyzing controversial issues and outright propagandizing for a particular point of view. It is the fear that some teachers would function as propaganda agents that has brought about a policy, in many European nations, of forbidding the teaching of controversial issues in the classroom.

In developing nations, university students have long played a role in political affairs. Such students, who represent an elitist group, have a significant impact on the political consciousness of the nation. The dangers of political involvement are the use of students as the puppets of certain politicians and the various sorts of confrontations that are disruptive to the educational process.

The elementary school is not too early to introduce students to political processes. Guidelines need to be developed for handling controversial and political issues to protect the teacher from attacks from the community. There should be the expectation that delving into controversial issues is very likely to lead to confrontation. Schools have traditionally avoided confrontation in the classroom because teachers have been imbued with the ethic that they must be careful about hurting people's feelings. We have not taught our children about the methods of confrontation, yet they see evidence in daily headlines that confrontation is really a new form of communication. Teachers should be alert to conflict situations that provide opportunities for interaction in the classroom. While rational discussion and critical thinking are overarching goals, teachers need not deal with controversial issues on an intellectual level only. Emotions should be allowed free expression. Understanding how people feel is essential to understanding what they think. All this can be done in the classroom in an unhurried atmosphere in which there is time for reflection.

Teacher education should include a package of experience that will provide some specialization in giving a cultural view of the world. Teachers must become aware of the richness of various cultures. In the U.S.A. we should use foreign students to tell us about ourselves.

The study of the literature of other cultures is a potential tool for promoting international understanding. Literature alone is not enough. Students need history and cultural background to understand the literature. We need more literature in translation and better translations.

Publishers of instructional materials should make more use of consultants of cross-national backgrounds to review textbooks and other materials before they are put on the market. Such a procedure would avoid both errors of fact and errors of interpretation.

Participants (8 nations)

Thelma Adair, chairman, Derek Burleson, co-chairman, Teresa Aveleyra, Jorge Betancur, Gene Bradford, Susan Cummings, Frances P. Friedman, Willis H. Griffin, Katsuya Kanayama, Rev. C. Albert Koob, Rev. Theophane Mathias, Albert Ogunsola, Donald Slezak, N. V. Thirtha, Kwangchung Yu, Vera Zorn.

Education's Role in Eliminating Barriers Among People

Section B

Reported by THEODORE RICE, Chairman

Since prejudices, like human conflicts, begin in the hearts of men, properly-oriented education can contribute materially to the resolution of conflicts and the promotion of attitudes favorable to peace and understanding among peoples.

As educators, we pledge ourselves to the creation of a climate conducive to the humanizing of all institutions influencing the minds of adults as well as children and youth. Our primary goal will be to internalize the appreciation of other cultures and ways of life. We will work for the elimination of barriers to understanding, international cooperation, and human development: including societal barriers, such as religious biases, ethnocentricity, caste, class, and ascribed status; educational barriers, such as dual schools, elitist selection procedures; political-economic barriers, such as ultranationalism, colonialism, imperialism, the concentration of wealth in the hands of a few nations; and personal barriers, such as lack of identity.

Because of the world crisis today we recognize an extreme urgency for action. We therefore call upon educators around the world to join us in making a personal and professional commitment to the following action programs:

1. In the education of teachers, the teacher education institutions should stress the following concepts: the unbreakable unity of mankind; respect for human rights, dignity, and freedom; provision of equality of opportunity irrespective of race, religion, sex, or status.

2. Those who teach and administer our schools should be expected to accept these concepts and be dedicated to the creation of a world without prejudice and discrimination.

3. Within the broad framework of existing curricula, courses, and methods, it is possible to introduce changes and shifts of emphasis which will prepare children and youth for a world without barriers.

4. This will require a careful and relentless scrutiny of curricular content by local and national educators and educational authorities in order to eliminate from them materials which generate prejudice. In addition, we call upon UNESCO and other international bodies to assist in bringing about multi-national textbook agreements for the mutual elimination of bias from national textbooks in regions of the world where such arrangements have not yet been attempted.

5. Instances of cruelty and inhumanity abound in the history of all nations and races. As members of the human race we share responsibility for such lapses, as we share credit for the triumphs of mankind. In the teaching of the humanities and social sciences, we as teachers will henceforth stress the common responsibility for men's misdeeds. This can only be achieved by an education that liberalizes the mind and makes the heart compassionate.

6. The removal of barriers involves a determined elimination of social, ethnic, and racial injustices. So long as injustices fester in society, hatreds and fanaticism will make understanding among men difficult, if not impossible.

7. With confidence in the youth of our countries, we wish to encourage their participation in planning and implementing programs and activities of international education.

Subgroups of the working party have begun to develop two approaches to action projects. One is directed at guides for teachers through analysis of the roles of home, school, and teachers in dealing with barriers which interfere with international education. The second is directed at anticipating and coping with conditions which give rise to barriers deleterious to children and youth.

Participants (12 nations)

Theodore Rice, chairman, Charles Shapp, co-chairman, Ronald S. Anderson, Robert Buzza, Norman Dixon, Norma Enriquez, George Fleshman, Mallam Aliyu Gani, Zohra Husain, Lucille Jordan, Alvin Loving, Sr., Thomas MacCalla, Basudev Chandra Malla, Ragava Menon, Ibrahim Othman, K. G. Saiyidain, Mary-Margaret Scobey, Helène Sherman, Zivojin Stanojcic, Kwo Hwa Tseng, Frank A. Valdes.

Helping Youth Develop Constructive Commitments and Cross-National Research on Moral Education

Reported by CHANDOS REID RICE, Chairman

Although the concrete projects which will be described in this report were significant to those involved, the discussions in which there was the greatest difference of opinion among the members were of even greater value. These differences of opinion caused the group members to probe their thinking at a depth which was not possible when they were in general agreement. Questions such as the following were discussed:

> Is it possible to teach children to be loyal first to the global good, and then to develop loyalties to more intimate groups?
>
> Are all loyalties to small groups or in-groups divisive? Is the kibbutz less divisive as an organization than the nuclear family? Is the former more appropriate to a modern technological society?
>
> Is our tendency to revolve around the "one who counts" so great that schools should try to center experiences around focal people rather than around content?

As we examined our own thinking, we found that we were ultra-conservative in thinking of roles in which we were comfortable and with which we were familiar, and inclined to be emotional and quite radical in exploring experimental areas. What does this mean for schools?

Societies which are surer of their values have less dissent among youth. If adults are to lead, then they should be sure of their values. But in a period of change as rapid as that of the present, can adults translate their values, learned in a different setting, into behavior appropriate for new situations? Does this mean that adults must give the leadership over to youth? Is it possible to develop a team situation with youth and adults, using the insights of youth oriented to the present and the future and the experience of adults applied to the challenge of the present?

Can we develop an ecology of education--an ecological approach which does not separate the individual from the totality of the world of which he is a part?

Are values based on consensus merely platitudes?

If you avoid teaching values, are you teaching their opposite?

Is it possible to develop a set of values for coping with value conflicts?

Is the source of values natural or artificial?

Is it possible to set an atmosphere in a school or a class which will open discussion to questions which members hesitate to raise? Is this desirable?

For many of the sessions, the working party divided into three small groups.

Group A was a discussion group which had heated discussion of what it chose to call "new nationalism." The members agreed that "new nationalism" rejects ultra-nationalism, encourages creative expansion of cultural differences, because all cultures are rich; that the nation-state should encourage ethnic languages or dialects, but provide one national language; that it should encourage and accept a diversity of child-rearing practices, family structure, and religions within the context of cultures; that individuals from all ethnic groups should have access without discrimination to all institutions--social, educational, religious, political, and welfare.

Group B members were concerned with cross-national research in moral education. They invited other groups interested in this topic to meet with them. Dr. Metro Gulutsan, University of Alberta, will serve as an exchange agent for those who are interested in sharing their efforts in this area.[1]

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[1] Persons interested in this project should contact Professor Metro Gulutsan, Faculty of Education, University of Alberta, Edmonton, Alberta, Canada.

Within the Subgroup B, two members will continue direct contacts with Dr. Prudence Dyer in an effort to modify her "Rubric for Expressed Values" for use in cross-national studies of values.[2]

Group C began design for a study of the role of students in decision making at the secondary school level. Participants in the total conference were invited to name secondary schools in which students have a significant role in decision making. Schools from 12 different countries were nominated. An instrument is being developed to survey the various kinds of participation and to identify outstanding schools and school practices in this field.

Participants (9 nations)

Chandos Reid Rice, chairman, Normand Bernier, co-chairman, Judith C. Bacigalupo, John Bigala, Prudence Dyer, Maria Garcia, Metro Gulutsan, James E. House, Pumla Kisosonkole, Joseph Malikail, Anton Murray, Philo T. Pritzkau, Hulman Sinaga, Robert Smith, Niels C. Wodder, Yuzi Yonemori.

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[2] For further information, contact Professor Prudence Dyer, College of Education, Drake University, Des Moines, Iowa, U.S.A.

Appendix

Background and Reaction Papers Presented and Distributed at the 1970 World Conference on Education

In addition to the papers included in this volume, a number of other papers were specially prepared at the request of the Conference Planning Committee. Further, each participant was encouraged to prepare a background paper for consideration by his working party. Since copies of some papers were not received at the conference office, the following list may not be complete. Apologies are extended to any conferee whose paper is not listed.

"Is the School an Obsolete Institution? A Reaction"
ADAWIA ALAMI, Director of Education, United Nations Relief Works, Agency for Palestine Refugees in the Near East, Jordan

"The Role of Education in Eliminating Barriers Between People"
TERESA AVELEYRA, Researcher and Lecturer, El Colegio de Mexico, Mexico City

"Meaningful Education for Human Relevance: Response to the Conference"
REVEREND JORGE BETANCUR, Dean, School of Social Sciences, Javeriana University, Colombia

"Maintaining a Supportive Social Environment for Man: A Worldwide Problem"
ARTHUR COMBS, Professor of Education, University of Florida, Gainesville

"A Data Processing System for Cross-National Research on Teaching"
JOAN CRACA, Systems Analyst, Unique Computer Systems, New York City; and MARIAN MARTINELLO, Assistant Professor, University of Florida, Gainesville

"Aspirations for Education Round the Globe: A Reaction"
YOLANDA DELGADO, Curriculum Consultant, Estado Miranda, Venezuela

"The Locally Appointed Inspector of Schools in Britain: An Aspect of Management"
E. L. EDMONDS, Professor of Education, University of Saskatchewan, Regina, Saskatchewan, Canada

"Useful Functions for Schools of the Future: A Reaction" and
"The International Dimension of Education as It Relates to Education in the Arab World for Creative Development for World Citizenship"
MOHAMMAD ALI EL-ERIAN, Professor of Intercultural Studies, Western College for Women, Oxford, Ohio

"Aspirations for Education Round the Globe"
ALEXANDER FRAZIER, Professor of Education, The Ohio State University, Columbus

Cooperative International Education and
"The United States of America and Cooperative International Education"
WILLIS H. GRIFFIN, Professor of Education, Director, Office for International Education Programs, University of Kentucky; and RALPH B. SPENCE, Professor Emeritus of Education, Teachers College, Columbia University, Research Associate, Research and Development Center, University of Georgia

"Designing New Programs in Secondary Teachers Education: A Proposal for Kenya in the 1970s" and
"Curriculum Development and the New Education in Kenya"
F. F. INDIRE, Senior Lecturer in Education, University College, Nairobi, Kenya

"Research into Reality"
WILLIAM P. KEIM, Coordinator of Secondary Education, Stanton School District, Wilmington, Delaware

The International Dimension of Education
LEONARD S. KENWORTHY, Professor of Education, Brooklyn College of the City University of New York

"How To Accomplish School Reform: A Reaction"
GEKE LINKER, Staff Member, Educational Study Center, The Netherlands

"Projective Education for Creative Human Development"
BARBARA ELLIS LONG, Research Psychologist, Southwest St. Louis Community Mental Health Center, St. Louis State Hospital Complex, St. Louis, Missouri

"Curriculum Development Programme at the Institute of Education, University of Ibadan, Nigeria"
JAMES A. MAJASAN, Associate Professor of Education, University of Ibadan, Nigeria

"Bases for International Understanding: Suggestions for Teaching the Young Child"
JOAN MOYER, Assistant Professor of Education, University of Maryland, College Park, Maryland

"The International Dimension of Education from an Indian Perspective"
S. NATARAJAN, Director of Projects, S.I.T.U. Council of Educational Research, Madras, India

"Comments on the Theme: How To Accomplish School Reform"
B. F. NEL, Professor of Educational Psychology, University of Pretoria, South Africa

"Useful Functions for the Schools of the Future: A Reaction"
YOICHI NISHIMOTO, Associate Professor of Education, Tamagawa Gakuen University, Japan

"Is the School an Obsolete Institution? A Reaction"
MARGARITA QUIJANO, Director, Comparative Literature Seminar, School of Philosophy, University of Mexico, Mexico City

Slide presentation
"Aspirations of Education Round the Globe"
RICHARD A. SANDERSON, Media Specialist, University of Hawaii, Honolulu

"Teaching About Worldwide Problems"
D. D. TEWARI, Director, Government Central Pedagogical Institute, Allahabad, India

"Response to the Conference"
WILFRED R. WEES, Associate Professor, The Ontario Institute for Studies in Education, Toronto, Canada

"How To Observe Schools in Another Nation"
HERBERT WILSON, Professor of Education, University of Arizona, Tucson

"Curriculum Planning for Developing Countries"
MARTA ZIEGENHAGEN, Berkeley, California; and JAMES MACDONALD, Director, Doctoral Studies in Education, University of Wisconsin, Milwaukee

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